



ALLEN STEWART
A PROFESSIONAL CORPORATION

January 18, 2012

Via U.S. Mail

Keith T. Tashima
U.S. Department of Justice
Environment and Natural Resources Division
Environmental Enforcement Section
P.O. Box 7611
Ben Franklin Station
Washington, DC 20044

Re: *Steven Lipsky, et al. v. Durant, Carter, Coleman, LLC, et al*; Cause No.
CV11-0798

Dear Mr. Tashima:

Pursuant to your conversation with attorney David Ritter, please find enclosed the Affidavit of Buddy Richter and the deposition transcript of Wayman Gore.

If you have any questions, please do not hesitate to contact me.

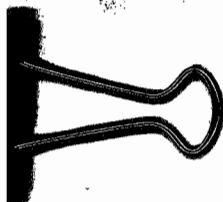
Sincerely,
ALLEN STEWART, P.C.

Maricela Rosas
Paralegal

s/mr
Enclosures

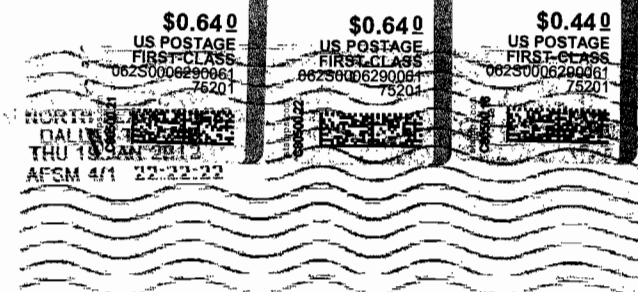


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Environmental Enforcement Section
P.O. Box 7611
Ben Franklin Station
Washington, DC 20044



SANDS, Jeffrey

CAUSE NO. CV-11-0798

STEVEN AND SHYLA LIPSKY
Plaintiff,

VS.

DURANT, CARTER, COLEMAN LLC.
SILVERADO ON THE BRAZOS
DEVELOPMENT COMPANY #1 LTD
JERRY V. DURANT, Individually,
JAMES T. COLEMEN, Individually
ESTATE OF PRESTON CARTER
RANGE PRODUCTION COMPANY, and
RANGE RESOURCES CORPORATION
Defendant.

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IN THE DISTRICT COURT

PARKER COUNTY, TEXAS

12 JAN 25 AM 1:08

DEPT. OF JUSTICE - ENRD
ENVIRONMENT DIVISION

43RD JUDICIAL DISTRICT

AMENDED AFFIDAVIT OF THOMAS H. RICHTER, P.E.
IN SUPPORT OF
PLAINTIFF'S ORIGINAL PETITION

STATE OF TEXAS §
§
COUNTY OF TRAVIS §

BEFORE ME, the undersigned authority, personally appeared Thomas H. Richter, P.E. ,
who, being by me duly sworn, stated as follows:

1. My name is Thomas H. Richter. I am of sound mind, capable of making this affidavit, and personally acquainted with the facts stated herein and the facts stated herein are true.

I. MY BACKGROUND AND QUALIFICATIONS

2. I am a Senior Petroleum Engineer with the firm of PGH Petroleum and Environmental Engineers, LLC ("PGH"), 7500 Rialto Blvd, Suite 150, Austin, Texas, 78735. I am over the age of eighteen and I have never been charged or convicted of a felony. I am a licensed professional engineer (Petroleum Engineering) in the State of Texas. My engineering license number is 42687. My experience includes (but is not limited to) nine years in the Railroad Commission District 5 & 6 Office as Assistant District Director, and 20 years as a Railroad Commission Technical Hearings Examiner in the Commission's Office of General Counsel. I have testified before the Railroad Commission on numerous occasions, as well as in District Court, and my credentials have been accepted. I

PLEA
90-5-1-1-10202

have been retained in this case by counsel for the plaintiffs, to provide opinions relating to: 1) whether Range Production's drilling activities caused or contributed to contamination of the water supply at the Lipsky property; and 2) the evidence and arguments made at the Railroad Commission hearing and order relating to the Lipsky property, which provided the basis for the Commission's order. To reach my opinions, I have reviewed the entirety of the record before the Railroad Commission of Texas in Oil & Gas Docket No. 7B-0268629 (includes the testimony transcripts and exhibits entered of record, documents received from Range Resources through discovery, records researched and copied from Railroad Commission Public Records).

3. Based on the review of these documents, together with my education, training, and experience, I have reached the following conclusions and opinions, to a reasonable degree of petroleum engineering certainty, relating to the above-described issues .

II. SUMMARY OF OPINIONS

4. At the Railroad Commission hearing, Range presented evidence and arguments aimed primarily at disproving the possibility that Range's "fracking" (fracture stimulation) activities caused gas from the Barnett Shale to migrate and contaminate the Lipskys' water supply. However, Range presented almost no evidence or argument relating to whether the company's drilling and completion activities caused or contributed to contamination/migration of gas from some other gas productive formations. These other formations are located between the top of the cemented interval in the subject wells and the ground surface, where Range's wells are uncemented.
5. Based on my review of the full record of the Commission hearing, together with the other evidence described herein, I have determined that, to a reasonable degree of reservoir engineering and completion engineering certainty, Range's failure to cement and/or complete the Butler and Teal wells through all of the formation intervals that included past and/or present gas containing formations was a cause or contributor to the contamination of the Lipskys' wells.

III. RANGE'S DRILLING ACTIVITIES CONTRIBUTED TO CONTAMINATION AT THE LIPSKY PROPERTY.

A. A Description of Range's Butler and Teal Wells.

6. The two wells at issue in this case are Range's Butler and Teal wells, both located in Parker County. At their surface locations, these two wells are approximately 2300 feet from the Lipsky property. Range's purpose for these wells is the extraction of natural gas from the Barnett Shale, which is located approximately 5700 feet below the ground surface. Both wells use horizontal drilling/completion and hydraulic fracture stimulation (also known as "fracking")

as a means of extracting gas from the Barnett Shale. In order to reach the Barnett Shale formation, located more than a mile below the surface, both wells must necessarily penetrate along the way several other geological formations that are or have been gas-producing.

7. Range's Butler and Teal wells pass (penetrate) through the Strawn, Atoka, Bend, Conglomerate and Marble Falls formations. *See* Attachment 1 (Range's Exhibit 34 to the Railroad Commission hearing, graphically illustrating the formations below the Butler and Teal wells). The Strawn Formation is located at approximate depths of 400 feet to 850 feet. The Atoka Formation (Bend Group) is located at 850 feet. The Marble Falls Formation is located at approximately 5200 feet. Each one of these geological formations has been or is currently producing natural gas. In fact, within five (5) miles of the Butler and Teal wells there have been 117 natural gas wells completed or re-completed in those formations.
 8. When drilling a well, operators are required by applicable regulations to set casing and cement the well in certain areas. Statewide Rule 13 requires that producers set casing and cement their wells for various reasons. The purpose of the casing requirement is to: 1) effectively control the well at all times; 2) isolate all usable quality water zones to prevent contamination or harm to the water; and 3) to prevent vertical migration of fluid and gases from formations that potentially produce oil or gas. *See* Statewide Rule 13 (Attachment 2). Rule 13 also requires that "when the section does not detail specific methods to achieve these objectives, the responsible party shall make every effort to follow the *intent of the section, using good engineering practices and the best currently available technology.*"
 9. The Range Resources Teal well has surface casing which is cemented from the surface to a depth of 427 feet. The Teal well's longstring casing is uncemented from the ground surface to 4810 feet, at which point the cement casing begins again and goes through to the end of the well, in the Barnett Shale (at depths of approximately 5700 feet TVD (True Vertical Depth)). The Butler well is cemented from the surface to a depth of 394 feet (surface casing). The Butler well's longstring casing is uncemented from the ground surface to 4580 feet, at which point the cement casing begins again (the "longstring casing") and goes to the end of the well. Both wells are horizontal drainhole wells. Thus, there is no confining cement isolating either of Range's wells from any gas-containing formation(s) that exist from depths between approximately 400 feet (base of the surface casing) and approximately 4500 feet.
- B. The Evidence Indicating That Range's Drilling Activities Contributed to Contamination of the Lipskys' Water.**

10. The available records provide several pieces of evidence that tend to demonstrate that Range's activities contributed to the contamination of the Lipsky's water supply. This evidence includes:
- a. The timing of the Lipskys' water problems. The Lipskys' water well was originally drilled in April 2005. However, the Lipskys did not experience natural gas contamination problems with the well until more than four years later – after Range began drilling, completion and production activities with the Butler and Teal wells in 2009.
 - b. The environment created by Range's drilling and completion activity permitted the possibility of gas migration. This is true for two reasons. First, as described above, Range's Butler and Teal wells were not cemented through thousands of feet of an interval that includes several known producing/productive gas formations. Second, there is recognized regional faulting in the area of the Butler and Teal wells that may have become conduits for gas migration resulting from Range's fracking. This faulting in the area independently creates an environment in which gas could migrate through formations above the Barnett Shale to the uncemented portion of the two wells, from where it could ultimately reach the Lipskys' water supply.
 - c. There is evidence that gas actually is migrating through the uncemented wells. This evidence comes from bradenhead pressure readings taken by Range. The bradenhead is a valve opening located at the top of the well casing that is open to the longstring casing-surface casing annulus. When pressure is measured at the bradenhead, this indicates a probable migration of gas through the well longstring casing-surface casing annulus, from sources other than the intended productive formation. In this instance, Range measured bradenhead pressure of 30 psi at the surface of the Butler well. Range presented no evidence to the Commission that would rule out the likelihood that this bradenhead pressure comes from migration of natural gas through the uncemented portion of the well. In fact, at the hearing, Range appeared to agree that this bradenhead pressure came, at least in part, from Strawn Formation or deeper formations (Marble Falls, Atoka and Caddo) gas traveling through the longstring casing-formation annulus.

Based on all of the above facts and data, it is my opinion, to a reasonable degree of engineering certainty, that Range's failure to properly complete the well(s) with the appropriate amount of surface casing or the cementing of the longstring casing (as required by Statewide Rule 13) through intermediate depths in the Butler and Teal wells, resulted in gas from the Strawn Formation and/or other deeper producing gas formations (but not the Barnett Shale) migrating to the Lipsky water supply, through the Strawn Formation. In light of the available evidence, the best explanation for the Lipskys' water problems is gas migration resulting from Range's failure to properly isolate potentially productive zones

through appropriate surface casing setting and cementing or alternative longstring setting and cementing procedures for the Teal and Butler wells.

IV. THE RAILROAD COMMISSION DID NOT HEAR EVIDENCE AND ARGUMENTS DIRECTED PRIMARILY TO THE QUESTION OF WHETHER UNCEMENTED SEGMENTS OF RANGE'S WELLS CONTRIBUTED TO THE LIPSKYS' WATER PROBLEM.

A. Range's Evidence and Arguments To the Railroad Commission Were Primarily Directed at Disproving that the Lipskys' Water Supply Was Contaminated by Gas from the Barnett Shale.

11. Range's evidence and arguments presented to the Railroad Commission can be summarized as follows:

- a. Other residents in the Silverado Development had natural gas in their water supplies, before Range ever began drilling the Butler and Teal wells.
- b. Range's records show that the cementing that was performed on the Butler and Teal wells provided an adequate seal for those portions of the well that were cemented.
- c. Range presented expert testimony that, based on the geology below the Butler and Teal wells, there was no pathway available for natural gas from the Barnett Shale to travel to the Lipskys' water supply. Thus, Range argued that it was close to impossible for natural gas from the Barnett Shale to reach the Lipskys' water.
- d. Range argued that the Lipskys' water problem only became evident after the Lipskys had begun using a high volume of water, including water for their landscaping. Range claimed that the Lipskys' (alleged) high-volume usage of water caused them to draw down the local water table in the Trinity Aquifer directly above the Strawn Formation, and that this draw-down ultimately resulted in the Strawn gas migrating into the Trinity Aquifer to the Lipskys' water well.

B. Range Never Presented Evidence To the Commission Relating To the Impact of Its Failure to Set Surface Casing Through Intermediate Portions of the Butler and Teal Wells.

12. Range discussed almost no evidence or arguments in front of the Railroad Commission that were relevant to the impact of Range's failure to properly isolate and seal off all potentially productive zones to prevent vertical migration of fluids and gases behind the casing (Statewide Rule 13 (a)(1)) of the Butler and Teal wells. Specifically, Range failed to discuss the following evidence:

- a. Plugging and completion reports on gas wells within 2 miles of the subject wells showed that, on wells that were plugged and abandoned, the plugs were

set at $\pm 1000'$ depth, without exception. This is the approximate horizon of the Strawn Group from the Atoka-Bend Group, which are and/or have been productive formations. Review of well completion reports show surface casing settings ranging from over 600' to over 1,000' in depth. This contrasts with Range's decision to set surface casing for the Butler and Teal wells only to approximately 400 feet. Although this data regarding the depths of plugs and surface casing settings of surrounding wells was part of the record, Range never discussed that data at the Commission hearing. There is no evidence that Range even looked at this data prior to even drilling the subject wells.

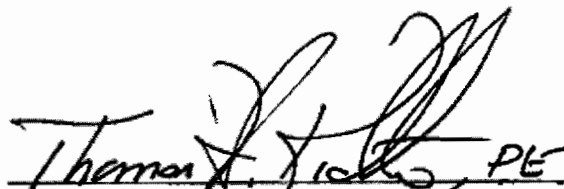
- b. Range Resources stated in the Commission hearing that there was no faulting in the area. However, even Range's only exhibit relevant to this issue, a structure map based on 3-D seismic data, showed a small black cone that does indicate a fault. *See Attachment 3 (Range Ex. 56).*
- c. Discovery information provided by Range in this lawsuit included a broader area 3-D seismic structure map, which shows faulting over the entire area surrounding the Butler and Teal wells. *See Attachment 3A.* This larger structure map was not presented at the hearing. Range's exhibit presented to the Commission is very misleading.
- d. I performed research concerning the Minerals Wells Fault System, and I found several technical articles and technical papers which depict and discuss the location of this fault system. These articles/papers show the Mineral Wells Fault System complex traversing across the Hood-Parker County line area in a northeast-southwest orientation and intersecting the Newark East Fault System to the east. Range included none of this geological information in the Railroad Commission record.
- e. I have also reviewed the deposition testimony of two water well drillers who had been drilling water wells throughout the Parker County area for many years. Mr. Peck, who drilled the Lipsky water well, testified that he had seen a similar occurrence to the Lipskys on one previous occasion. In describing that occasion, he noted that it was ultimately determined that the gas contamination in that instance had been caused by an oil and gas drilling operation. That incident was similar to the Lipskys' circumstances, in that both cases involved: gas migrating to the water supply, bradenhead pressure on the well, and the close proximity of the gas well to the affected water supply. Mr. Peck also testified that there had generally been increasing reports of methane contamination of water supplies in areas around the United States where gas drilling operations were occurring. Likewise, Mr. Malone testified that he had not heard of methane being in the water in the area until gas drilling operation began in the area. *See Attachment 4 (Depo. of Mr. Peck) at 83-87; 90-92. Attachment 5 (Depo. of Mr. Malone) at 48-49.*

- f. In my original affidavit, I erroneously stated in paragraph 13(e) that "Range did not introduce either [the Peck or Malone] depositions at the Commission hearing." This was based on my review of the record obtained from the Railroad Commission. While I had requested a complete record with all exhibits, the Peck and Malone depositions were omitted from the record I originally obtained from the Commission. Per the transcript it appears that Range's counsel, Mr. Jackson, purported to tender the Peck and Malone depositions at the end of the proceedings as Exhibits 130 and 131, respectively. (Transcript, Vol. II, p. 197-199).
 - g. While I have made this amended affidavit to correct the prior erroneous statement, the inclusion of the Peck and Malone depositions does not change my conclusions. The depositions were tendered at the end of the proceedings as part of what Range's counsel described as a "housekeeping matter of some rather voluminous documents," and the experiences and opinions of Mr. Peck and Mr. Malone noted in paragraph 13(e) above were not fully brought to the attention of the Commission by Range.
- V. I have also reviewed the deposition testimony of Steven Lipsky. Mr. Lipsky testified that he had not routinely watered his landscaping from his domestic water supply. Instead, for that purpose he pumped water from a nearby river. Nonetheless, at the hearing, Range argued to the Commission that the Lipskys' high-volume water usage – in large part due to landscaping – had caused the migration of gas to his water supply.
 - a. In my original affidavit, I erroneously stated in paragraph V that "Range also failed to introduce [the deposition of Steven Lipsky] at the Commission hearing. This was based on my review of the record obtained from the Railroad Commission. While I had requested a complete record with all exhibits, the Steven Lipsky deposition was omitted from the record I originally obtained from the Commission. Per the transcript, it appears that Range's counsel, Mr. Jackson, purported to tender the Steven Lipsky deposition at the end of the proceedings as Exhibit 132. (Transcript, Vol. II, p. 197-199).
 - b. While I have made this amended affidavit to correct the prior erroneous statement, the inclusion of the Steven Lipsky deposition does not change my conclusions. The deposition was tendered at the end of the proceedings as part of what Range's counsel described as a "housekeeping matter of some rather voluminous documents," and the facts related by Mr. Lipsky noted in paragraph V above were not fully brought to the attention of the Commission by Range.

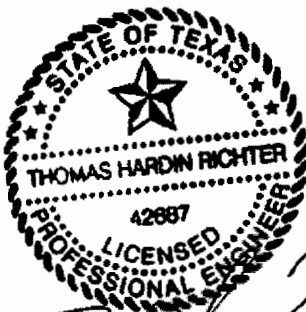
VI. CONCLUSION


13. Under the Commission's procedures, the hearing in this case would be considered an unprotested case, rather than a protested case. The Commission "call" of the hearing was for Range Resources to present evidence and testimony, which it did. This was the only evidence presented and therefore the only evidence considered by the Commission. Generally, those matters which in an unprotested case may be deemed sufficient for decision making are summarily found insufficient in a protested case due to cross examination, contradicting evidence/testimony, etc. Thus, the Commission assigns less precedential value to its own decisions in previous unprotested cases concerning similar matters. *See, e.g.*, Attachment 6 (Examiners' Opinion in Case No. 0252782) at 6 (declining to adopt Chesapeake's application for a protested permit, despite the fact that identical grounds for a permit had previously been accepted by the Commission in the context of unprotested proceedings).
14. Based on all of the above, including my experience and my review of all of the evidence described here, the evidence and arguments presented to the Railroad Commission at the hearing were inadequate for the Commission to make a full and fair finding as to whether Range's failure to complete the Butler and Teal wells, in full compliance with Statewide Rule 13, contributed to the Lipskys' water problems. This issue was simply not fully or fairly litigated at the hearing.

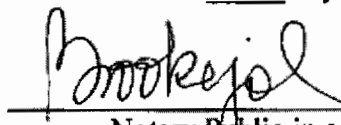
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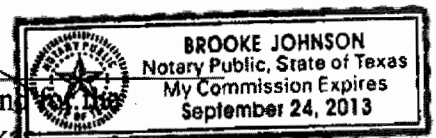

Thomas H. Richter, P.E.
Texas Engineering License Number 42687

SUBSCRIBED AND SWORN TO before me on this 8th day of November, 2011.




November 8, 2011


Notary Public in and for
State of Texas



PGH PETROLEUM &
ENVIRONMENTAL
ENGINEERS, LLC
F-9137

ATTACHMENT NO. 1

STRATIGRAPHIC CHART

Teal & Butler Units Area

Hood & Parker Cos., TX

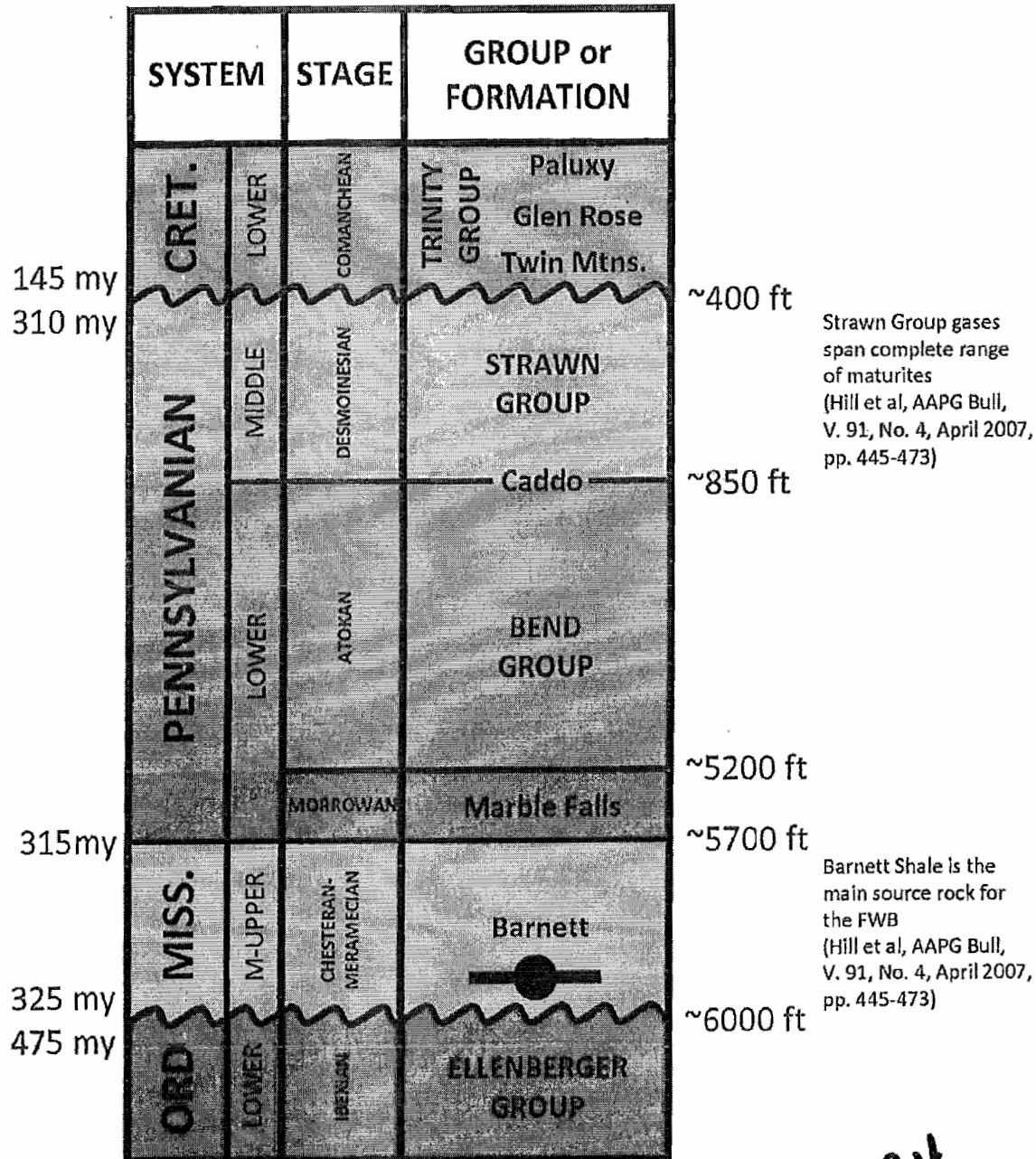


Exhibit No. 34
Operator: Range Resources
Docket No. 7B-0268629
Date: January 19, 2011

ATTACHMENT NO. 2

<<Prev Rule

Texas Administrative Code

Next Rule>>

TITLE 16

ECONOMIC REGULATION

PART 1

RAILROAD COMMISSION OF TEXAS

CHAPTER 3

OIL AND GAS DIVISION

RULE §3.13

Casing, Cementing, Drilling, and Completion Requirements

(a) General.

(1) The operator is responsible for compliance with this section during all operations at the well. It is the intent of all provisions of this section that casing be securely anchored in the hole in order to effectively control the well at all times, all usable-quality water zones be isolated and sealed off to effectively prevent contamination or harm, and all potentially productive zones be isolated and sealed off to prevent vertical migration of fluids or gases behind the casing. When the section does not detail specific methods to achieve these objectives, the responsible party shall make every effort to follow the intent of the section, using good engineering practices and the best currently available technology.

(2) Definitions. The following words and terms, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise.

(A) Stand under pressure--To leave the hydrostatic column pressure in the well acting as the natural force without adding any external pump pressure. The provisions are complied with if a float collar is used and found to be holding at the completion of the cement job.

(B) Zone of critical cement--For surface casing strings shall be the bottom 20% of the casing string, but shall be no more than 1,000 feet nor less than 300 feet. The zone of critical cement extends to the land surface for surface casing strings of 300 feet or less.

(C) Protection depth--Depth to which usable-quality water must be protected, as determined by the Texas Commission on Environmental Quality (TCEQ) or its successor agencies, which may include zones that contain brackish or saltwater if such zones are correlative and/or hydrologically connected to zones that contain usable-quality water.

(D) Productive horizon--Any stratum known to contain oil, gas, or geothermal resources in commercial quantities in the area.

(b) Onshore and inland waters.

(1) General.

(A) All casing cemented in any well shall be steel casing that has been hydrostatically pressure tested with an applied pressure at least equal to the maximum pressure to which the pipe will be subjected in the well. For new pipe, the mill test pressure may be used to fulfill this requirement. As an alternative to hydrostatic testing, a full length electromagnetic, ultrasonic, radiation thickness gauging, or magnetic particle inspection may be employed.

(B) Wellhead assemblies shall be used on wells to maintain surface control of the well. Each component of the wellhead shall have a pressure rating equal to or greater than the anticipated pressure to which that particular component might be exposed during the course of drilling, testing, or producing

the well.

(C) A blowout preventer or control head and other connections to keep the well under control at all times shall be installed as soon as surface casing is set. This equipment shall be of such construction and capable of such operation as to satisfy any reasonable test which may be required by the commission or its duly accredited agent.

(D) When cementing any string of casing more than 200 feet long, before drilling the cement plug the operator shall test the casing at a pump pressure in pounds per square inch (psi) calculated by multiplying the length of the casing string by 0.2. The maximum test pressure required, however, unless otherwise ordered by the commission, need not exceed 1,500 psi. If, at the end of 30 minutes, the pressure shows a drop of 10% or more from the original test pressure, the casing shall be condemned until the leak is corrected. A pressure test demonstrating less than a 10% pressure drop after 30 minutes is proof that the condition has been corrected.

(E) Wells drilling to formations where the expected reservoir pressure exceeds the weight of the drilling fluid column shall be equipped to divert any wellbore fluids away from the rig floor. All diverter systems shall be maintained in an effective working condition. No well shall continue drilling operations if a test or other information indicates the diverter system is unable to function or operate as designed.

(2) Surface casing.

(A) Amount required.

(i) An operator shall set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the TCEQ. Before drilling any well in any field or area in which no field rules are in effect or in which surface casing requirements are not specified in the applicable field rules, an operator shall obtain a letter from the TCEQ stating the protection depth. In no case, however, is surface casing to be set deeper than 200 feet below the specified depth without prior approval from the commission.

(ii) Any well drilled to a total depth of 1,000 feet or less below the ground surface may be drilled without setting surface casing provided no shallow gas sands or abnormally high pressures are known to exist at depths shallower than 1,000 feet below the ground surface; and further, provided that production casing is cemented from the shoe to the ground surface by the pump and plug method.

(B) Cementing. Cementing shall be by the pump and plug method. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. If cement does not circulate to ground surface or the bottom of the cellar, the operator or his representative shall obtain the approval of the district director for the procedures to be used to perform additional cementing operations, if needed, to cement surface casing from the top of the cement to the ground surface.

(C) Cement quality.

(i) Surface casing strings must be allowed to stand under pressure until the cement has reached a compressive strength of at least 500 psi in the zone of critical cement before drilling plug or initiating a test. The cement mixture in the zone of critical cement shall have a 72-hour compressive strength of at least 1,200 psi.

(ii) An operator may use cement with volume extenders above the zone of critical cement to cement the casing from that point to the ground surface, but in no case shall the cement have a compressive strength of less than 100 psi at the time of drill out nor less than 250 psi 24 hours after being placed.

(iii) In addition to the minimum compressive strength of the cement, the API free water separation shall average no more than six milliliters per 250 milliliters of cement tested in accordance with the current API RP 10B.

(iv) The commission may require a better quality of cement mixture to be used in any well or any area if evidence of local conditions indicates a better quality of cement is necessary to prevent pollution or to provide safer conditions in the well or area.

(D) Compressive strength tests. Cement mixtures for which published performance data are not available must be tested by the operator or service company. Tests shall be made on representative samples of the basic mixture of cement and additives used, using distilled water or potable tap water for preparing the slurry. The tests must be conducted using the equipment and procedures adopted by the American Petroleum Institute, as published in the current API RP 10B. Test data showing competency of a proposed cement mixture to meet the above requirements must be furnished the commission prior to the cementing operation. To determine that the minimum compressive strength has been obtained, operators shall use the typical performance data for the particular cement used in the well (containing all the additives, including any accelerators used in the slurry) at the following temperatures and at atmospheric pressure.

(i) For the cement in the zone of critical cement, the test temperature shall be within 10 degrees Fahrenheit of the formation equilibrium temperature at the top of the zone of critical cement.

(ii) For the filler cement, the test temperature shall be the temperature found 100 feet below the ground surface level, or 60 degrees Fahrenheit, whichever is greater.

(E) Cementing report. Upon completion of the well, a cementing report must be filed with the commission furnishing complete data concerning the cementing of surface casing in the well as specified on a form furnished by the commission. The operator of the well or his duly authorized agent having personal knowledge of the facts, and representatives of the cementing company performing the cementing job, must sign the form attesting to compliance with the cementing requirements of the commission.

(F) Centralizers. Surface casing shall be centralized at the shoe, above and below a stage collar or diverting tool, if run, and through usable-quality water zones. In nondeviated holes, pipe centralization as follows is required: a centralizer shall be placed every fourth joint from the cement shoe to the ground surface or to the bottom of the cellar. All centralizers shall meet API spec 10D specifications. In deviated holes, the operator shall provide additional centralization.

(G) Alternative surface casing programs.

(i) An alternative method of fresh water protection may be approved upon written application to the appropriate district director. The operator shall state the reason (economics, well control, etc.) for the alternative fresh water protection method and outline the alternate program for casing and cementing through the protection depth for strata containing usable-quality water. Alternative programs for setting more than specified amounts of surface casing for well control purposes may be requested on a field or area basis. Alternative programs for setting less than specified amounts of surface casing will be

authorized on an individual well basis only. The district director may approve, modify, or reject the proposed program. If the proposal is modified or rejected, the operator may request a review by the director of field operations. If the proposal is not approved administratively, the operator may request a public hearing. An operator shall obtain approval of any alternative program before commencing operations.

(ii) Any alternate casing program shall require the first string of casing set through the protection depth to be cemented in a manner that will effectively prevent the migration of any fluid to or from any stratum exposed to the wellbore outside this string of casing. The casing shall be cemented from the shoe to ground surface in a single stage, if feasible, or by a multi-stage process with the stage tool set at least 50 feet below the protection depth.

(iii) Any alternate casing program shall include pumping sufficient cement to fill the annular space from the shoe or multi-stage tool to the ground surface. If cement is not circulated to the ground surface or the bottom of the cellar, the operator shall run a temperature survey or cement bond log. The appropriate district office shall be notified prior to running the required temperature survey or bond log. After the top of cement outside the casing is determined, the operator or his representative shall contact the appropriate district director and obtain approval for the procedures to be used to perform any required additional cementing operations. Upon completion of the well, a cementing report shall be filed with the commission on the prescribed form.

(iv) Before parallel (nonconcentric) strings of pipe are cemented in a well, surface or intermediate casing must be set and cemented through the protection depth.

(3) Intermediate casing.

(A) Cementing method. Each intermediate string of casing shall be cemented from the shoe to a point at least 600 feet above the shoe. If any productive horizon is open to the wellbore above the casing shoe, the casing shall be cemented from the shoe up to a point at least 600 feet above the top of the shallowest productive horizon or to a point at least 200 feet above the shoe of the next shallower casing string that was set and cemented in the well.

(B) Alternate method. In the event the distance from the casing shoe to the top of the shallowest productive horizon make cementing, as specified above, impossible or impractical, the multi-stage process may be used to cement the casing in a manner that will effectively seal off all such possible productive horizons and prevent fluid migration to or from such strata within the wellbore.

(4) Production casing.

(A) Cementing method. The producing string of casing shall be cemented by the pump and plug method, or another method approved by the commission, with sufficient cement to fill the annular space back of the casing to the surface or to a point at least 600 feet above the shoe. If any productive horizon is open to the wellbore above the casing shoe, the casing shall be cemented in a manner that effectively seals off all such possibly productive horizons by one of the methods specified for intermediate casing in paragraph (3) of this subsection.

(B) Isolation of associated gas zones. The position of the gas-oil contact shall be determined by coring, electric log, or testing. The producing string shall be landed and cemented below the gas-oil contact, or set completely through and perforated in the oil-saturated portion of the reservoir below the gas-oil contact.

(5) Tubing and storm choke requirements.

(A) Tubing requirements for oil wells. All flowing oil wells shall be equipped with and produced through tubing. When tubing is run inside casing in any flowing oil well, the bottom of the tubing shall be at a point not higher than 100 feet above the top of the producing interval nor more than 50 feet above the top of a line, if one is used. In a multiple zone structure, however, when an operator elects to equip a well in such a manner that small through-the-tubing type tools may be used to perforate, complete, plug back, or recompleat without the necessity of removing the installed tubing, the bottom of the tubing may be set at a distance up to, Cont'd...

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Texas Administrative Code

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TITLE 16**ECONOMIC REGULATION****PART 1****RAILROAD COMMISSION OF TEXAS****CHAPTER 3****OIL AND GAS DIVISION****RULE §3.13****Casing, Cementing, Drilling, and Completion Requirements**

but not exceeding, 1,000 feet above the top of the perforated or open-hole interval actually open for production into the wellbore. In no case shall tubing be set at a depth of less than 70% of the distance from the surface of the ground to the top of the interval actually open to production.

(B) Storm choke. All flowing oil, gas, and geothermal resource wells located in bays, estuaries, lakes, rivers, or streams must be equipped with a storm choke or similar safety device installed in the tubing a minimum of 100 feet below the mud line.

(c) Texas offshore casing, cementing, drilling, and completion requirements.

(1) Casing. The casing program shall include at least three strings of pipe, in addition to such drive pipe as the operator may desire, which shall be set in accordance with the following program.

(A) Conductor casing. A string of new pipe, or reconditioned pipe with substantially the same characteristics as new pipe, shall be set and cemented at a depth of not less than 300 feet TVD (true vertical depth) nor more than 800 feet TVD below the mud line. Sufficient cement shall be used to fill the annular space back of the pipe to the mud line; however, cement may be washed out or displaced to a maximum depth of 50 feet below the mud line to facilitate pipe removal on abandonment. Casing shall be set and cemented in all cases prior to penetration of known shallow oil and gas formations, or upon encountering such formations.

(B) Surface casing. All surface casing shall be a string of new pipe with a mill test of at least 1,100 pounds per square inch (psi) or reconditioned pipe that has been tested to an equal pressure. Sufficient cement shall be used to fill the annular space behind the pipe to the mud line; however, cement may be washed out or displaced to a maximum depth of 50 feet below the mud line to facilitate pipe removal on abandonment. Surface casing shall be set and cemented in all cases prior to penetration of known shallow oil and gas formations, or upon encountering such formations. In all cases, surface casing shall be set prior to drilling below 3,500 feet TVD. Minimum depths for surface casing are as follows.

(i) Surface Casing Depth Table.

Attached Graphic

(ii) Casing test. Cement shall be allowed to stand under pressure for a minimum of eight hours before drilling plug or initiating tests. Casing shall be tested by pump pressure to at least 1,000 psi. If, at the end of 30 minutes, the pressure shows a drop of 100 psi or more, the casing shall be condemned until the leak is corrected. A pressure test demonstrating a drop of less than 100 psi after 30 minutes is proof that the condition has been corrected.

(C) Production casing or oil string. The production casing or oil string shall be new or reconditioned pipe with a mill test of at least 2,000 psi that has been tested to an equal pressure and after cementing shall be tested by pump pressure to at least 1,500 psi. If, at the end of 30 minutes, the pressure shows a

drop of 150 psi or more, the casing shall be condemned. After corrective operations, the casing shall again be tested in the same manner. Cementing shall be by the pump and plug method. Sufficient cement shall be used to fill the calculated annular space above the shoe to protect any prospective producing horizons and to a depth that isolates abnormal pressure from normal pressure (0.465 gradient). A float collar or other means to stop the cement plug shall be inserted in the casing string above the shoe. Cement shall be allowed to stand under pressure for a minimum of eight hours before drilling the plug or initiating tests.

(2) Blowout preventers.

(A) Before drilling below the conductor casing, the operator shall install at least one remotely controlled blowout preventer with a mechanism for automatically diverting the drilling fluid to the mud system when the blowout preventer is activated.

(B) After setting and cementing the surface casing, a minimum of two remotely controlled hydraulic ram-type blowout preventers (one equipped with blind rams and one with pipe rams), valves, and manifolds for circulating drilling fluid shall be installed for the purpose of controlling the well at all times. The ram-type blowout preventers, valves, and manifolds shall be tested to 100% of rated working pressure, and the annular-type blowout preventer shall be tested to 1,000 psi at the time of installation. During drilling and completion operations, the ram-type blowout preventers shall be tested by closing at least once each trip, and the annular-type preventer shall be tested by closing on drill pipe once each week.

(3) Kelly cock. During drilling, the well shall be fitted with an upper kelly cock in proper working order to close in the drill string below hose and swivel, when necessary for well control. A lower kelly safety valve shall be installed so that it can be run through the blowout preventer. When needed for well control, the operator shall maintain at all times on the rig floor safety valves to include:

(A) full-opening valve of similar design as the lower kelly safety valves; and

(B) inside blowout preventer valve with wrenches, handling tools, and necessary subs for all drilling pipe sizes in use.

(4) Mud program. The characteristics, use, and testing of drilling mud and conduct of related drilling procedures shall be designed to prevent the blowout of any well. Adequate supplies of mud of sufficient weight and other acceptable characteristics shall be maintained. Mud tests shall be made frequently. Adequate mud testing equipment shall be kept on the drilling platform at all times. The hole shall be kept full of mud at all times. When pulling drill pipe, the mud volume required to fill the hole each time shall be measured to assure that it corresponds with the displacement of pipe pulled. A derrick floor recording mud pit level indicator shall be installed and operative at all times. A careful watch for swabbing action shall be maintained when pulling out of hole. Mud-gas separation equipment shall be installed and operated.

(5) Casinghead.

(A) Requirement. All wells shall be equipped with casingheads of sufficient rated working pressure, with adequate connections and valves available, to permit pumping mud-laden fluid between any two strings of casing at the surface.

(B) Casinghead test procedure. Any well showing sustained pressure on the casinghead, or leaking

gas or oil between the surface casing and the oil string, shall be tested in the following manner. The well shall be killed with water or mud and pump pressure applied. Should the pressure gauge on the casinghead reflect the applied pressure, the casing shall be condemned. After corrective measures have been taken, the casing shall be tested in the same manner. This method shall be used when the origin of the pressure cannot be determined otherwise.

(6) Christmas tree. All completed wells shall be equipped with Christmas tree fittings and wellhead connections with a rated working pressure equal to, or greater than, the surface shut-in pressure of the well. The tubing shall be equipped with a master valve, but two master valves shall be used on all wells with surface pressures in excess of 5,000 psi. All wellhead connections shall be assembled and tested prior to installation by a fluid pressure equal to the test pressure of the fitting employed.

(7) Storm choke and safety valve. A storm choke or similar safety device shall be installed in the tubing of all completed flowing wells to a minimum of 100 feet below the mud line. Such wells shall have the tubing-casing annulus sealed below the mud line. A safety valve shall be installed at the wellhead downstream of the wing valve. All oil, gas, and geothermal resource gathering lines shall have check valves at their connections to the wellhead.

(8) Pipeline shut-off valve. All gathering pipelines designed to transport oil, gas, condensate, or other oil or geothermal resource field fluids from a well or platform shall be equipped with automatically controlled shut-off valves at critical points in the pipeline system. Other safety equipment must be in full working order as a safeguard against spillage from pipeline ruptures.

(9) Training. Effective January 1, 1981, all tool pushers, drilling superintendents, and operators' representatives (when the operator is in control of the drilling) shall be required to furnish certification of satisfactory completion of a USGS-approved school on well control equipment and techniques. The certification shall be renewed every two years by attending a USGS-approved refresher course. These training requirements apply to all drilling operations on lands which underlie fresh or marine waters in Texas.

Source Note: The provisions of this §3.13 adopted to be effective January 1, 1976; amended to be effective April 8, 1980, 5 TexReg 1152; amended to be effective October 3, 1980, 5 TexReg 3794; amended to be effective January 1, 1983, 7 TexReg 3982; amended to be effective March 10, 1986, 11 TexReg 901; amended to be effective January 11, 1991, 16 TexReg 39; amended to be effective August 13, 1991, 16 TexReg 4153; amended to be effective August 25, 2003, 28 TexReg 6816

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ATTACHMENT NO. 3

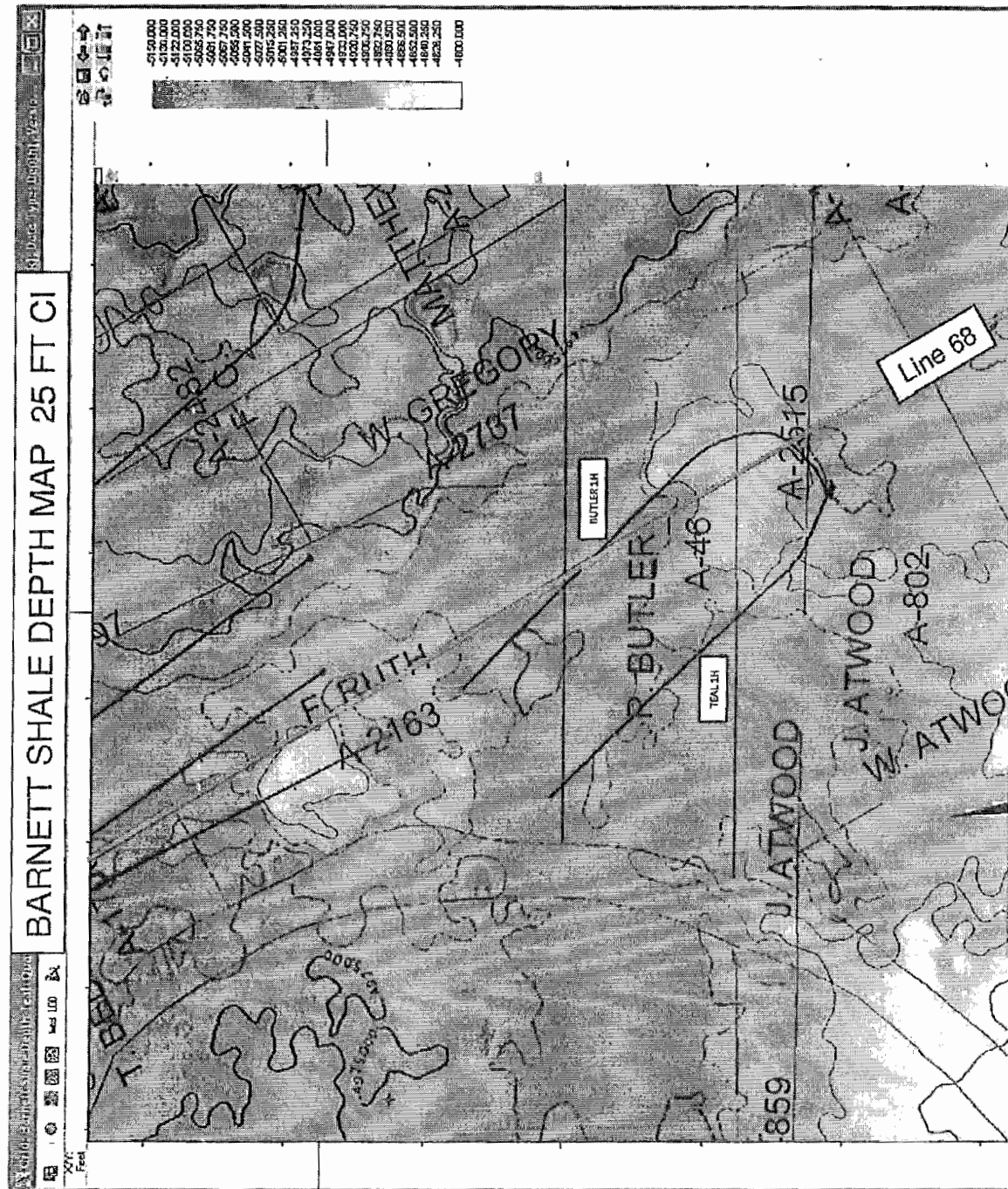


Exhibit No. **56**
 Operator: **Range Resources**
 Docket No. **7B-0268629**
 Date: **January 19, 2011**

Cause No. CV11-0798

Lipsky v. Durant Carter Coleman, LLC

Wayman Gore, Jr. PE

November 16, 2011



MERIT COURT REPORTERS LLC
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Job No. 12062

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Page 1

1 CAUSE NO. CV11-0798
2 STEVEN and SHYLA LIPSKY, \$ IN THE DISTRICT COURT
3 \$
4 v. \$
5 \$
6 DURANT, CARTER, COLEMAN, \$ 43RD JUDICIAL DISTRICT
7 LLC; SILVERADO ON THE \$
8 BRAZOS DEVELOPMENT \$
9 COMPANY #1 LTD.; JERRY \$
10 V. DURANT, Individually; \$
11 JAMES T. COLEMAN, \$
12 Individually; ESTATE OF \$
13 PRESTON CARTER; RANGE \$
14 PRODUCTION COMPANY; AND \$
15 RANGE RESOURCES \$
16 CORPORATION, \$
17 v. \$
18 \$ PARKER COUNTY, TEXAS
19 \$
20 ALISA RICH \$
21 -----
22 ORAL AND VIDEOTAPED DEPOSITION OF
23 WAYMAN T. GORE, JR., P.E.
24 Volume 1 of 1
25 November 16, 2011

ORAL AND VIDEOTAPED DEPOSITION OF WAYMAN T. GORE,
JR., P.E., produced as a witness at the instance of
Defendants Range Production Company and Range
Resources Corporation, and duly sworn, was taken in
the above-styled and numbered cause on November 16,
2011, from 10:08 AM to 6:37 PM, before Gaylord A.
Sturgess, CSR No. 744 in and for the State of Texas,
reported by Stenographic method, at the offices of
HARRIS, FINLEY & BOGLE, PC, 777 Main Street, Suite

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Page 2

1 3600, Fort Worth, Texas 76102, pursuant to the Texas
2 Rules of Civil Procedure, Notice, and any provisions
3 stated on the record.
4
5 Job No. 12062.as
6
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<p>1 PROCEEDINGS</p> <p>2 THE REPORTER: Just under the Rules.</p> <p>3 MR. SIMS: Yes.</p> <p>4 MR. RITTER: Yes.</p> <p>5 THE VIDEOGRAPHER: We are on the</p> <p>6 record. Today's date is November 16th, 2011. It is</p> <p>7 10:08 AM.</p> <p>8 THE REPORTER: Mr. Gore, would you</p> <p>9 raise your right hand, please, and be sworn.</p> <p>10 Do you solemnly swear, or affirm, the</p> <p>11 testimony you shall give in this case will be the</p> <p>12 truth, the whole truth, and nothing but the truth, so</p> <p>13 help you God?</p> <p>14 THE WITNESS: I do.</p> <p>15 THE REPORTER: Thank you.</p> <p>16 WAYMAN T. GORE, JR., P.E.,</p> <p>17 having been first duly sworn, testified as follows:</p> <p>18 EXAMINATION</p> <p>19 BY MR. SIMS:</p> <p>20 Q. Mr. Gore, would you please state your full</p> <p>21 name.</p> <p>22 A. Wayman Travis Gore, Jr.</p> <p>23 Q. Mr. Gore, by whom are you employed?</p> <p>24 A. PGH Engineers.</p> <p>25 Q. And what is PGH Engineers?</p>	<p>1 various litigation matters since 1995?</p> <p>2 A. Yes.</p> <p>3 Q. How many?</p> <p>4 A. Since '95, I couldn't tell you. I'm</p> <p>5 assuming you're talking about either depositions or</p> <p>6 trial?</p> <p>7 Q. Yes.</p> <p>8 A. I think over my career -- well, at least</p> <p>9 going back to the mid- to late 1980s, I think I have</p> <p>10 testified in approximately 50 different litigation</p> <p>11 matters, either trial testimony, deposition. A few of</p> <p>12 those would include arbitration matters. But in the</p> <p>13 legal realm of things.</p> <p>14 Q. How many times have you actually testified</p> <p>15 in court?</p> <p>16 A. I don't know the answer to that.</p> <p>17 Q. More than ten?</p> <p>18 A. I don't know. It's probably in that range.</p> <p>19 If it's more than ten, probably not a lot more.</p> <p>20 Q. Do you have a list of the cases in which</p> <p>21 you've testified before?</p> <p>22 A. Yes.</p> <p>23 Q. And have you brought that with you today?</p> <p>24 A. I have.</p> <p>25 Q. Okay. Why don't we mark that as an exhibit</p>
Page 6	Page 8
<p>1 A. A petroleum engineering consulting firm.</p> <p>2 Q. How long have you been employed by PGH</p> <p>3 Engineers?</p> <p>4 A. I started the firm in January of 1995, so</p> <p>5 ever since then.</p> <p>6 Q. What type of business does PGH Engineers</p> <p>7 provide?</p> <p>8 A. Well, obviously, petroleum engineering</p> <p>9 consulting services. I typically break what we do</p> <p>10 down into three major areas:</p> <p>11 Railroad Commission, or regulatory</p> <p>12 work. Not just Railroad Commission, but Comptroller,</p> <p>13 TCEQ work;</p> <p>14 General reservoir petroleum</p> <p>15 engineering. That would include things like reserve</p> <p>16 studies, reserve evaluations, kind of general-type</p> <p>17 petroleum engineering;</p> <p>18 And then the third area would be</p> <p>19 litigation support.</p> <p>20 Q. And when you say litigation support, does</p> <p>21 that mean testifying as a witness in various</p> <p>22 litigation matters?</p> <p>23 A. It could mean that; it doesn't necessarily</p> <p>24 have to.</p> <p>25 Q. Have you testified as an opinion witness in</p>	<p>1 to your deposition. And we'll just mark it as 28,</p> <p>2 which is the next exhibit in the list of exhibits that</p> <p>3 we began making the other day.</p> <p>4 If you could please identify, what is</p> <p>5 Exhibit 28, please?</p> <p>6 A. Exhibit 28 is a summary of the matters that</p> <p>7 I've given expert witness testimony in.</p> <p>8 Q. And are the matters in which you actually</p> <p>9 testified in court delineated on there?</p> <p>10 A. Yes.</p> <p>11 Q. And can you tell us how many times you have</p> <p>12 actually testified in court, based on Exhibit 28?</p> <p>13 A. I'll have to just count them up, if you'll</p> <p>14 give me just a minute.</p> <p>15 Q. Okay.</p> <p>16 (Short pause.)</p> <p>17 A. It looks like 19. And I think three --</p> <p>18 three or four of those were arbitrations, so I counted</p> <p>19 that in the 19. So probably -- what would that be --</p> <p>20 15 roughly, in -- in the courthouse.</p> <p>21 Q. In the matters in which you have provided</p> <p>22 opinion testimony, have you been what's commonly</p> <p>23 called an expert witness in those matters?</p> <p>24 A. Yes.</p> <p>25 Q. In any of those matters, have you provided</p>

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<p>1 any opinion testimony regarding an alleged 2 contamination of a water aquifer or water well? 3 A. No. 4 Q. Are you a geologist? 5 A. No. 6 Q. Do you hold any licenses by the State of 7 Texas in the field of geology? 8 A. No. 9 Q. Have you received any degrees in the field 10 or study of geology? 11 A. No. 12 Q. Are you a hydrogeologist? 13 A. No. 14 Q. Have you ever received any degrees in the 15 study of hydrogeology? 16 A. No. 17 Q. Do you hold any licenses in the field of 18 hydrogeology? 19 A. No. 20 Q. Are you a geophysicist? 21 A. No. 22 Q. Have you ever received any degrees in the 23 study of geophysics? 24 A. No. 25 Q. Do you hold any licenses in the field of</p>	<p>1 Kerry Pollard was a former partner and 2 founder of the firm. I don't know what all he has 3 been asked to do since 1995. 4 He would be the only one that could 5 have possibly been asked to do that. But I don't 6 believe anyone else would have been. 7 Q. Has Kerry Pollard had any involvement on the 8 matter on which we're here today? 9 A. No. 10 Q. Are you familiar with the concept of 11 reliable expert testimony? 12 A. I don't know that I've heard of that as a 13 concept. I mean, I -- clearly, I've heard the phrase. 14 But I don't know that I would characterize it as a 15 concept. 16 Q. Are you aware of any procedures or methods 17 by which the Courts are asked to make sure that expert 18 testimony is reliable? 19 A. I think generally I am. 20 Q. And, to provide reliable expert opinions, 21 would you agree with me that it's important for the 22 expert to independently investigate the facts? 23 A. Yes. 24 Q. Would you agree with me that it's important 25 for the expert to objectively evaluate the facts, not</p>
Page 10	Page 12
<p>1 geophysics? 2 A. No. 3 Q. Are you a toxicologist? 4 A. No. 5 Q. Do you hold any degrees in the field of 6 toxicology? 7 A. No. 8 Q. Do you hold any licenses in the field of 9 toxicology? 10 A. No. 11 Q. Is there anyone with PGH that is a 12 geologist, geophysicist, toxicologist, or 13 hydrogeologist? 14 A. We have one geological engineer on our staff 15 that is, I believe, a registered geologist in the 16 State of Texas. But he would be the only one. 17 Q. And who is that? 18 A. Jeff Hawkins. 19 Q. How long has Mr. Hawkins been with PGH? 20 A. Approximately seven years. 21 Q. To your knowledge, prior to this assignment 22 has anyone at PGH ever been asked to provide opinion 23 testimony on any matter involving alleged 24 contamination of a water aquifer or a water well? 25 A. Not to my knowledge.</p>	<p>1 as an advocate but as an objective third party? 2 A. Yes. 3 Q. Would you agree with me that it's important, 4 for reliable expert testimony, for the expert to 5 consider all the available information and data? 6 A. Yes. 7 Q. Would you agree with me that, for expert 8 testimony to be reliable, that the expert should base 9 his or her opinion on reliable sources of information? 10 A. Yes. 11 Q. Would you agree with me that if an expert 12 witness is going to provide opinions about an alleged 13 cause of some event, that it's important for the 14 expert to rule out the other possible causes? 15 A. Well, I don't know that you necessarily need 16 to rule them out. But I think what you do is: You 17 review and evaluate the data that you have, and from 18 that data, and your study, reach an opinion. 19 Now, does that rule out all other 20 possible causes? Perhaps not. 21 But I think when you evaluate the data 22 that you have and you reach an opinion that it is more 23 likely than not that this is what has occurred, in my 24 view, when you get to that point, I don't know that 25 that necessarily, completely, one hundred percent</p>

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1 rules anything else out. But, rather, you've just
2 reached an opinion based upon the available data of
3 what is more likely than not.

4 Q. Would you agree with me that, for an expert
5 witness's opinion to be reliable, that the expert
6 witness must not go into the assignment with a
7 preordained conclusion?

8 A. I would agree with that.

9 Q. Are you familiar with the term, Daubert
10 Motions, in the State of Texas?

11 A. Yes.

12 Q. Have you or anyone at your firm ever been
13 the subject of a Daubert Motion?

14 A. Of a motion, probably.

15 Q. Okay.

16 A. Because I think that's usually the tactic
17 these days in litigation, that various attorneys try
18 to get the other side's experts disqualified.

19 So, I'm sure there have been motions
20 filed.

21 Q. Can you identify on Exhibit 28 which cases
22 those motions were filed?

23 A. No.

24 Well, I do know of one -- I'm sorry --
25 because it was fairly recently.

1 A. He is one of the attorneys representing the
2 Lipskys, I believe.

3 Q. Do you remember what day Mr. Stewart
4 contacted you?

5 A. No, I don't.

6 I know from looking at some of the
7 invoices that we sent out that were exhibits from last
8 week's deposition.

9 I think the first time entry was on
10 December the 29th, so it would have been -- I don't
11 know if the actual phone call was the day before that
12 or whatever. But it would have been, I think, some --
13 sometime that week or within a few days of December
14 29th.

15 Q. Who all was present for that conversation --
16 or who all was involved in that conversation?

17 A. Just me and Mr. Stewart.

18 Q. Tell us what Mr. Stewart told you and how
19 you responded; just tell us about that conversation.

20 A. Well, he told me that he was given my name
21 by another engineer in Houston, Gary Wooley, I
22 believe.

23 He said he represented the Lipskys in a
24 matter where their water well had natural gas in it.
25 And he basically asked if we could assist him in

Page 14

Page 16

1 It would have been -- at least on
2 Exhibit 28. I believe one was filed in what is marked
3 Number 50 on the exhibit, which is a matter: MIGL,
4 M-I-G-L, versus Atlas Tubular.

5 I was representing Atlas Tubular. I
6 believe there was a motion filed in that particular
7 case.

8 Q. And was that matter pending in a -- in a
9 State District Court or --

10 A. It was.

11 Q. Okay. Has that matter gone to hearing yet,
12 or do you know?

13 A. No. Actually, it never did go to hearing.
14 At some point after that, the case was settled.

15 Q. Okay. When were you engaged to begin
16 working on the matter that we're here on today, which
17 is the Steven and Shyla Lipsky versus Durant-Carter,
18 Range Defendants, et al, matter that's Cause Number
19 CV11-0798, pending in the District Court of Parker
20 County, Texas, in the 43rd Judicial District Court?

21 A. I believe we were first contacted in late
22 December of 2010.

23 Q. Who contacted you?

24 A. My first contact was with Al Stewart.

25 Q. And who is Al Stewart?

1 trying to determine the cause or the source of the
2 natural gas in their water well.

3 I believe in that conversation he
4 mentioned an EPA ruling or order. And I'm sure he
5 mentioned the Range wells because, obviously, that
6 order -- the EPA order -- dealt with the Teal and the
7 Butler wells.

8 But that's basically what I recall
9 about the conversation.

10 Q. Did Mr. Stewart express any opinion to you
11 about what he thought was the cause of natural gas in
12 the water wells?

13 A. No.

14 Q. Did he provide you a copy of the EPA order
15 that you referenced?

16 A. He did.

17 Q. Was that before or after the phone call?

18 A. I feel certain it would have been after the
19 phone call because, obviously, when he first called, I
20 didn't have any data. I didn't even, I don't think,
21 know about the case. So I don't think I would have
22 had it before the call.

23 Q. Had you heard anything about the case or the
24 matter prior to his phone call, through any other
25 source or read about it or anything like that?

4 (Pages 13 to 16)

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Page 19

1 **A. I don't believe so.**
2 Q. Prior to this phone call that you had with
3 Al Stewart, had anyone else at PGH been contacted
4 about this matter to your knowledge?
5 **A. No.**
6 Q. How long did the conversation last with
7 Mr. Stewart?
8 **A. I have no idea. It wasn't a long call, but**
9 **I don't recall precisely how long it was.**
10 Q. What did you tell him in the conversation
11 with respect to PGH's availability to work on the
12 matter?
13 **A. Well, I told him that we would work with**
14 **him; that, you know, we would look at the available**
15 **data.**
16 **You know, I think during that call I**
17 **probably, when he mentioned the EPA order, asked for**
18 **him to send me a copy of that and agreed that we would**
19 **look into and investigate what we could about the**
20 **potential source of the natural gas in the Lipskys'**
21 **water well and move on from there.**
22 Q. Did Mr. Stewart tell you that a hearing had
23 been set by the Railroad Commission with respect to an
24 investigation or a hearing to determine the cause of
25 natural gas in the Lipskys' water well?

1 would you provide it to David so he can get it to us?
2 **A. Absolutely. (The witness nods head up and**
3 **down.)**
4 Q. Was your firm provided some sort of retainer
5 or money deposit to cover fees as they were incurred
6 along the way?
7 **A. Again, not that I recall. I would just have**
8 **to check.**
9 Q. Was the EPA order emailed to you or mailed
10 by regular mail or Fed Ex'd, or how did you receive
11 it?
12 **A. I don't know.**
13 Q. Have you -- have you looked for or gone in
14 to search emails that you've received from the lawyers
15 in this case related to this matter, to produce them
16 as a part of the record in this case?
17 **A. Not specifically. I know my practice is I**
18 **don't keep emails, so there's really nothing to look**
19 **for.**
20 **So, to the extent there was emails, my**
21 **practice is to delete them, just so I don't clutter up**
22 **my inbox and the server, so -- but I did not**
23 **specifically look.**
24 **I know that -- I know when Mr. Richter**
25 **was going through the discovery process and trying to**

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1 **A. I don't -- I don't think he told me that in**
2 **that first conversation. I know that he did tell me**
3 **that subsequent to that conversation, but I don't**
4 **think that was the subject of that initial phone call.**
5 Q. Is there anything else you can recall or
6 remember about the conversation you had with
7 Mr. Stewart as you sit here today other than what
8 you've told me?
9 **A. No.**
10 Q. As a part of that conversation, did you talk
11 about fees, what would be charged and how it would be
12 charged, for the work that PGH would do on the matter?
13 **A. I don't recall discussing that.**
14 Q. Does PGH have an engagement letter that it
15 utilizes to, when it's engaged in a matter, to have a
16 client or customer sign?
17 **A. Yes, we do. We have those on some projects,**
18 **not all. But we try to do that.**
19 Q. Do you have an engagement letter on this
20 project?
21 **A. I don't recall.**
22 Q. I haven't -- I haven't seen one provided in
23 any of the documents. And I'm going to address this
24 to David, too.
25 **Would you agree that, if there is one,**

1 **pull together everything to provide you, I thought**
2 **that was done. But I did not do that.**
3 Q. Did you learn the other day in the
4 deposition of Mr. Richter that that had not been done?
5 **A. I don't specifically recall that, no.**
6 Q. Have you had anybody check to see if those
7 emails can be retrieved off of the hard drives of your
8 computers?
9 **A. No.**
10 Q. Have any of the lawyers asked you to do
11 that?
12 **A. No.**
13 Q. After you received the phone call from
14 Mr. Stewart, what's the next thing you did on the
15 matter?
16 **A. Well, we -- I'm not sure what the sequence**
17 **of events were. But I know that, generally, we**
18 **undertook a research project just to figure out where**
19 **the Lipsky well was and in what other wells -- water**
20 **wells or oil and gas wells in the area.**
21 **And I think that was done both in the**
22 **office and on some online data sources, as well as at**
23 **the Railroad Commission in their files.**
24 **But that was -- that would have been,**
25 **generally, the first thing we would have done.**

5 (Pages 17 to 20)

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Page 23

1 Q. After your initial phone call with
2 Mr. Stewart, at some time soon thereafter, did you
3 learn that there was a hearing scheduled by the Texas
4 Railroad Commission to determine whether Range had
5 caused or contributed to natural gas in the Lipsky
6 water well?

7 A. I became aware of a Railroad Commission
8 hearing.

9 Q. And who made you aware of that?

10 A. I believe it was Mr. Stewart.

11 Q. What did Mr. Stewart tell you about the
12 Railroad Commission hearing?

13 A. That the Commission had called the hearing.
14 Again, I don't specifically recall the
15 conversation. I think generally it would have been,
16 he told me that there was a hearing called regarding
17 the EPA order. I'm sure he told me the date of the
18 hearing. He --

19 I guess really, generally that would be
20 it.

21 Q. Did he tell you that he had filed an
22 appearance with the Railroad Commission for the
23 purposes of the hearing on behalf of the Lipskys?

24 A. I don't recall him telling me that, no.

25 Q. At some point did you learn that another

1 asked who they were, and he gave me a couple of names.
2 I'd never heard of the people.

3 And I told him that, you know, we --
4 we've obviously done a lot of work at the Commission
5 over the years and are familiar with the attorneys
6 that regularly practice there, and that I had not
7 heard of either of the two gentlemen that he had given
8 me their names.

9 And he asked me to provide him with
10 some other names, and I did so. And Mr. Soule was one
11 of those names that I provided.

12 Q. What were the names that he told you that he
13 had already contacted?

14 A. I can't remember. I don't know.

15 Q. Do you have any notes about any of these
16 conversations or anything like that in your files?

17 A. No.

18 Q. What were the names that you gave him to
19 contact?

20 A. I don't specifically recall. Obviously,
21 Mr. Soule was one.

22 I believe I gave him the name of --
23 gave him Tim George at McGinnis, Lochridge & Kilgore.
24 I believe, maybe, Jamie Nielsen, who is a sole
25 practitioner there in Austin. Perhaps Glen Johnson at

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Page 24

1 lawyer in Austin, Texas, named Mr. Soule, had been
2 contacted to be involved as an attorney for the
3 Lipskys?

4 A. At some point it was my understanding that
5 John Soule was contacted to, presumably, deal with or
6 work with Mr. Stewart regarding the pending Railroad
7 Commission hearing.

8 Q. Do you know where or how Mr. Stewart got
9 Mr. Soule's name?

10 A. Yes.

11 Q. How is that?

12 A. I provided it.

13 Q. Do you remember when you did that?

14 A. No, I -- I don't, not -- not exactly. It --
15 generally, I think it would have been sometime in
16 early January; but I don't recall the specific date.

17 Q. For what purpose did you provide Mr. Soule's
18 name to Mr. Stewart?

19 A. As I recall, Mr. Stewart had indicated that
20 he had been in touch with a couple of different
21 attorneys in Austin about the hearing.

22 I asked who they were.

23 He had indicated to me that he thought
24 the people that he had contacted were regular
25 practitioners before the Railroad Commission. So I

1 Kelly, Hart & Hallman.

2 But -- and, again, that's -- I don't
3 know that I specifically gave him those names; but
4 those are what seem to be familiar to me.

5 Q. Do you know if Mr. Stewart contacted any of
6 these attorneys other than John Soule?

7 A. I don't.

8 Q. Were you involved in a telephone conference
9 on January 3rd with Al Stewart, John Soule, and David
10 Ritter, among others?

11 A. I don't specifically recall being involved
12 in a conversation.

13 I guess the best thing to do would be
14 to look at my invoices to see if I noted that.

15 Q. Let's look at Exhibit 25 to the deposition,
16 and it's one of the pages within Exhibit 25 that's
17 Bates-numbered Lipsky 06249.

18 If you will, please, sir, look at that
19 handwritten note there and tell us if you can identify
20 that document.

21 (Short pause.)

22 A. Well, it -- it looks like it's the
23 handwriting of Jeff Hawkins in my office. But I
24 couldn't -- that's what it appears to be to me.

25 I would probably just have to confirm

6 (Pages 21 to 24)

Page 25	Page 27
<p>1 that with Jeff.</p> <p>2 Q. Okay. Do you see at the top right-hand</p> <p>3 corner of the document that there's a date of January</p> <p>4 3rd, 2011?</p> <p>5 A. I do.</p> <p>6 Q. And at the top of the page it says Lipsky,</p> <p>7 dash, Parker County?</p> <p>8 A. Yes.</p> <p>9 Q. And underneath that it says phone call</p> <p>10 11 -- excuse me -- phone conference call 11 AM?</p> <p>11 A. Yes.</p> <p>12 Q. And out beside that it says John Soule,</p> <p>13 David, it looks like Allen, dash, Lipsky attorney?</p> <p>14 A. Yes.</p> <p>15 Q. Do you recall if you were present or</p> <p>16 involved in a telephone conference call on January</p> <p>17 3rd, 2011, with John Soule, Allen Stewart, David</p> <p>18 Ritter, among perhaps others?</p> <p>19 A. I don't.</p> <p>20 Q. You just don't recall?</p> <p>21 A. No. I mean, we could probably get to the</p> <p>22 bottom of it if you had copies of my invoices; perhaps</p> <p>23 I made an entry there. But I don't specifically</p> <p>24 recall being involved.</p> <p>25 Q. I've marked the invoices that were provided</p>	<p>1 was in fact involved in that conference call as well</p> <p>2 on January 3rd, 2011?</p> <p>3 A. Yes. That's what this indicates.</p> <p>4 Q. And above that entry, it looks like</p> <p>5 Mr. Richter was also involved in that conference call</p> <p>6 on January 3rd, 2011, is that correct?</p> <p>7 A. Yes.</p> <p>8 Q. Were there any other people in your office</p> <p>9 that were involved in the conference call on January</p> <p>10 3rd, 2011, other than yourself, Jeff Hawkins, and</p> <p>11 Mr. Richter?</p> <p>12 A. Not to my knowledge.</p> <p>13 Q. Was the Railroad Commission hearing</p> <p>14 discussed in the January 3rd, 2011, conference call?</p> <p>15 A. I don't know. My assumption would be, from</p> <p>16 Mr. Hawkins' notes where apparently John Soule</p> <p>17 participated in that same conference call, that it</p> <p>18 would have been discussed. But I don't specifically</p> <p>19 recall it being discussed.</p> <p>20 Q. Looking down through the notes of the</p> <p>21 January 3rd, 2011, phone conference call, there's an</p> <p>22 entry that says: Strawn gas versus Barnett gas.</p> <p>23 Do you see that?</p> <p>24 A. I do.</p> <p>25 Q. What does that reference?</p>
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<p>1 last week at the deposition of Mr. Richter as Exhibit</p> <p>2 29. And they're just all stapled together there,</p> <p>3 beginning with the -- as I understand it, the time</p> <p>4 that was incurred in December of 2010 through January</p> <p>5 of 2011, through -- all the way through the last</p> <p>6 invoice that was provided of time through September</p> <p>7 30th, 2011?</p> <p>8 A. Yes.</p> <p>9 Q. Does Exhibit 29 appear to be all the</p> <p>10 invoices that were provided by Mr. Richter at his</p> <p>11 deposition last week?</p> <p>12 A. I believe it is.</p> <p>13 Q. All right. Do you see an entry on January</p> <p>14 3rd, 2011, in which you were engaged in a conference</p> <p>15 call, appears to be, for three, three and a half</p> <p>16 hours, at your billing rate of \$325 an hour?</p> <p>17 A. Well, I see that reference. But I don't</p> <p>18 think it's fair to characterize the conference call as</p> <p>19 three and a half hours, because other work was being</p> <p>20 done.</p> <p>21 So -- but there is an entry for me on</p> <p>22 January the 3rd for a conference call and Railroad</p> <p>23 Commission research totaling three and a half hours on</p> <p>24 that day.</p> <p>25 Q. And I note that it appears that Jeff Hawkins</p>	<p>1 A. I don't know.</p> <p>2 Q. Do you recall any conversation about whether</p> <p>3 the gas in the Lipsky water well could be Strawn gas</p> <p>4 versus Barnett gas?</p> <p>5 A. Not at that time, I don't.</p> <p>6 Q. Do you recall any conversation in the phone</p> <p>7 conference call of January 3, 2011, about a trace or</p> <p>8 iodine or eridium, or something like that, that's</p> <p>9 noted on Lipsky Document 06429 that's a part of</p> <p>10 Exhibit 25 to your deposition?</p> <p>11 A. No.</p> <p>12 Q. You don't recall anything about that in the</p> <p>13 conversation?</p> <p>14 A. I don't.</p> <p>15 Q. What about the next entry on the page about</p> <p>16 Gray Wire Line, do you recall any conversation about</p> <p>17 that?</p> <p>18 A. No.</p> <p>19 Q. What about before or after the phone</p> <p>20 conference call, do you recall any conversations with</p> <p>21 anyone about any of these items that are shown on</p> <p>22 Lipsky 06429 that's part of Exhibit 25 to your</p> <p>23 deposition?</p> <p>24 A. I generally recall some discussion about</p> <p>25 what could be done, any sort of test that could be run</p>

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1 to determine if there was communication between the
2 Range wells and the Lipsky well.

3 I do remember that generally being
4 discussed, but I don't know that it was in this phone
5 call.

6 Q. What -- what kinds of things did you
7 conclude or did you determine could be done to
8 determine whether there could be communication between
9 the Range wells and the Lipsky water well?

10 A. I didn't determine anything. There was some
11 discussion about, you know, possible things that could
12 be done.

13 I seem to recall Mr. Hawkins has some
14 field experience, wireline field experience. But I
15 remember things that we had seen done in the past, not
16 specifically related to a matter like this, but where
17 wells were -- where you were trying to determine if
18 wells were in communication to one another and the
19 possible things that were run, tracer surveys and
20 things of that sort, to identify those sorts of
21 issues.

22 But, again, I don't -- I don't
23 specifically recall discussing those in this phone
24 call. But I think generally, during the course of the
25 work here, we had general conversations about that.

1 Q. What's the next entry refer to: Map and RRC
2 documents?

3 A. Well, I'm not sure what it refers to
4 because, I mean, these aren't my notes. So -- but
5 other than just on the face, you know, it -- map and
6 RRC documents, to me, would seem to indicate that we
7 needed to obtain those sorts of things.

8 But, again, I believe -- and, again,
9 I'm not even sure of that. But I believe these are
10 Mr. Hawkins' notes. And so he would be the one that
11 could probably tell you, if he could remember, what
12 these notations or entries actually mean.

13 Q. And underneath that there's an entry of a
14 name that appears to be Amy.

15 Do you know who that refers to?

16 A. No, not specifically. I mean, we had an Amy
17 in our office, but I don't -- I don't think she ever
18 worked on the project. So I'm not sure what Amy
19 that's referring to.

20 Q. Are you aware of any other Amy that it might
21 refer to other than the one that worked in your
22 office?

23 A. No.

24 Q. Underneath that it appears to be a name of
25 Debra Rabel, and then, dash, open records request.

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1 Q. Did anyone at PGH ever make any
2 determinations about what sorts of tests could be
3 performed to determine whether there was any
4 communication between the Range gas wells and the
5 Lipsky water well?

6 A. Not to my knowledge.

7 Q. Underneath the entry about Gray Wire Line,
8 there's an entry about radioactive gas. And out
9 beside that it looks like, dash, Texas. And there's a
10 word that I really can't make out.

11 Can you make out what that word is?

12 A. It almost looks like A&M, but I'm not sure.

13 Q. Do you recall any conversations or
14 discussion about radioactive gas, dash, Texas A&M?

15 A. No.

16 Q. Underneath that there's an entry about a
17 Ken -- it appears to be Ken Luig, L-U-I-G maybe, and a
18 phone number.

19 Do you know who that is?

20 A. I do not.

21 Q. Do you recall any discussion about a Ken
22 Luig?

23 A. No.

24 Q. At any point in time?

25 A. No.

1 Do you see that entry?

2 A. I do.

3 Q. Do you know who that is or what that refers
4 to?

5 A. Well, I think she is a Railroad Commission
6 employee, or at least was at that time. But other
7 than that -- again, I'm interpreting what these notes
8 mean to me. And my assumption would be that she would
9 be the person handling the open records request at the
10 Commission.

11 But, again, these aren't my notes, so I
12 couldn't be positive on that.

13 Q. What about the entry for Ramone; do you --
14 do you know anything about who that is or what that
15 refers to?

16 A. No; other than, there is a -- at least one
17 Ramone that I know of that works at the Railroad
18 Commission. But we don't have any Ramones in our
19 office. So my assumption would be, it would be
20 related to Ramone Fernandez at the Railroad
21 Commission. But, again, I don't know that.

22 Q. Do you recall anything specifically that
23 Mr. Soule said during the conversation in the
24 conference call on January 3rd, 2011, that you were a
25 part of?

8 (Pages 29 to 32)

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<p>1 A. No, I don't.</p> <p>2 Q. Do you think -- do you recall anything that</p> <p>3 Mr. Stewart said in the conference call on January</p> <p>4 3rd, 2011?</p> <p>5 A. No.</p> <p>6 Q. Do you recall anything that you said or</p> <p>7 contributed in the conference call on January 3rd,</p> <p>8 2011?</p> <p>9 A. No. I didn't even remember I participated</p> <p>10 in the call until we looked at the invoice, so...</p> <p>11 Q. Do you recall anything Mr. Richter said or</p> <p>12 contributed during the conference call on January 3rd,</p> <p>13 2011?</p> <p>14 A. No.</p> <p>15 Q. Do you recall anything that Mr. Hawkins said</p> <p>16 or contributed during the conference call on January</p> <p>17 3rd, 2011?</p> <p>18 A. No.</p> <p>19 Q. Do you recall anything Mr. Ritter said or</p> <p>20 contributed during the conference call on January 3rd,</p> <p>21 2011?</p> <p>22 A. No.</p> <p>23 Q. Have you ever talked to Mr. Lipsky?</p> <p>24 A. Yes.</p> <p>25 Q. When have you talked to him?</p>	<p>1 revealed. And we shared that with them at that time.</p> <p>2 Q. Prior to this meeting -- did you find when</p> <p>3 that was? Was it in February of 2011?</p> <p>4 A. Well, I briefly went through here, and I</p> <p>5 didn't run across the meeting. I seem to recall it</p> <p>6 was in March. But I don't have an invoice for March,</p> <p>7 so...</p> <p>8 Q. Would you have produced invoices for every</p> <p>9 month that you did work; is that your course of --</p> <p>10 typical course of dealing?</p> <p>11 A. That would typically be what we would do,</p> <p>12 yes.</p> <p>13 Q. Would you agree to go back and look and see</p> <p>14 if there are any other invoices that have not been</p> <p>15 produced and provide those to us?</p> <p>16 A. Yes, I will.</p> <p>17 Q. The documents that we received last week</p> <p>18 went from -- there were a few entries in December of</p> <p>19 2010, and then January of 2011, February of 2011; and</p> <p>20 then it skipped over to August of 2011.</p> <p>21 A. Right.</p> <p>22 Q. Has an invoice been generated for October of</p> <p>23 2011?</p> <p>24 A. It's being worked on right now. It has not</p> <p>25 been generated to my knowledge.</p>
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<p>1 A. I think it was in March. We had one</p> <p>2 meeting. And that's been my only conversation, I</p> <p>3 believe, with Mr. Lipsky.</p> <p>4 (Short pause.)</p> <p>5 No, it wouldn't have been -- it must</p> <p>6 have been February. But we had a meeting in</p> <p>7 Mr. Ritter's office here in Fort Worth, and Mr. Lipsky</p> <p>8 was present at that meeting.</p> <p>9 Q. Is that the only time you've ever spoken</p> <p>10 with or talked to Mr. Lipsky?</p> <p>11 A. Yes.</p> <p>12 Q. Was his wife, Shyla Lipsky, present for that</p> <p>13 meeting?</p> <p>14 A. Yes.</p> <p>15 Q. Who else was present for the meeting?</p> <p>16 A. Al Stewart and Buddy Richter.</p> <p>17 Q. So it was you, Mr. Richter, Mr. Stewart,</p> <p>18 Mr. Ritter, Mr. Lipsky, and Mrs. Lipsky?</p> <p>19 A. I believe so. I'm not sure that Mr. Ritter</p> <p>20 was there, to be honest. I know it was at his office,</p> <p>21 but I don't know that he was in the meeting.</p> <p>22 Q. What was discussed in that meeting?</p> <p>23 A. The purpose of the meeting was really for</p> <p>24 us, for Buddy and I, to bring both Al and the Lipskys</p> <p>25 up to date on what our investigation and study had</p>	<p>1 Q. And you will agree to produce that when it</p> <p>2 is generated?</p> <p>3 A. Yes.</p> <p>4 Q. Prior to the meeting that you had with the</p> <p>5 Lipskys, had you or Mr. Richter told the Lipskys or</p> <p>6 Allen Stewart any conclusions or opinions that you had</p> <p>7 drawn from reviewing any information at that point in</p> <p>8 time?</p> <p>9 A. Not the Lipskys. I believe we had had phone</p> <p>10 conversations with Mr. Stewart and had shared those</p> <p>11 with him. But I know we didn't do that with the</p> <p>12 Lipskys.</p> <p>13 Q. When were you first told that you would not</p> <p>14 be needed or your services would not be needed to</p> <p>15 testify or provide evidence to the Railroad Commission</p> <p>16 in connection with the Railroad Commission hearing</p> <p>17 that had been scheduled and that you've told us that</p> <p>18 you were aware of?</p> <p>19 A. I don't know that I was ever told that.</p> <p>20 Q. Were you ever a part of any discussions or</p> <p>21 conversations about whether the Lipskys would provide</p> <p>22 testimony or their agents or experts would provide</p> <p>23 testimony to the Railroad Commission regarding the</p> <p>24 cause of natural gas in the Lipsky water well?</p> <p>25 A. No.</p>

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<p>1 Q. Do you remember Mr. Richter saying last week 2 that you're the one that told him that y'all -- that 3 you-all would not be showing up to testify at the 4 Railroad Commission hearing? 5 MR. RITTER: Objection, form. 6 A. I don't recall him telling you that. 7 Q. You don't recall that? 8 A. No. 9 Q. Is it your testimony that you never had a 10 conversation with Mr. Richter in which you told him 11 that you would not be testifying at the Railroad 12 Commission hearing? 13 A. I don't specifically recall a conversation 14 like that. I mean, clearly, we knew that there was a 15 Railroad Commission hearing scheduled. But we were 16 never asked, nor was it even discussed with 17 Mr. Stewart about us participating in a Railroad 18 Commission hearing. 19 So, I suppose if I'd had a conversation 20 with Mr. Richter about that, then it would have been 21 something along those lines, that, you know, we've 22 never been asked to; so my assumption would be we're 23 not going to. 24 But I don't specifically recall 25 anything like that.</p>	<p>1 Q. Was there any -- ever any conversation that 2 you had with anyone about asking the Railroad 3 Commission to postpone the hearing so that you could 4 finish whatever work you were doing? 5 A. No. 6 Q. To your knowledge is there anything that 7 precluded the Lipskys from asking the Railroad 8 Commission to postpone the hearing? 9 A. Well, I'm not sure what all rights -- if 10 that's the right word -- the Lipskys had when it came 11 to the Railroad Commission hearing. 12 I do know that they weren't a party to 13 the hearing. And I don't know that nonparties can 14 routinely ask for continuances or things of that sort. 15 So -- but, no, that was never 16 discussed. I just knew that the Lipskys -- that they 17 weren't a party to the Railroad Commission hearing. 18 And which, you know, I don't know why they would have 19 asked for such a thing. 20 Q. When you say you knew they were not a party 21 to the Railroad Commission hearing, you also were not 22 aware that their lawyers had filed a notice of 23 appearance for them in the Railroad Commission 24 hearing, were you? 25 A. I was not aware of that. I am now,</p>
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<p>1 Q. Did you ever have any conversations with 2 Mr. Soule about whether you would be providing any 3 testimony to the Railroad Commission? 4 A. No. 5 Q. Did you ever have any conversations with 6 Mr. Soule about whether anyone on behalf of Lipsky 7 would show up and provide evidence or testimony to the 8 Railroad Commission? 9 A. No. 10 Q. At any point after you were engaged in late 11 December of 2010, and after you learned about the 12 hearing, were you ever curious about whether you would 13 be asked to show up and testify at the hearing? 14 A. No. 15 Q. Is there anything that would have precluded 16 you from testifying at the hearing, had you been asked 17 to do so? 18 A. Yes. 19 Q. What's that? 20 A. Well, we were just engaged in late December. 21 I think the hearing was something like January the 22 17th, or somewhere mid-January. 23 There's no way we could have done a 24 study and presented any testimony at a Railroad 25 Commission hearing that quick.</p>	<p>1 obviously; but I wasn't then. 2 Q. Were you aware that the Lipskys had filed 3 the original complaint that led to the investigation 4 by the Railroad Commission? 5 A. Well, I know that they filed the complaint, 6 and presumably that's what initiated this whole 7 matter. 8 I don't know exactly the sequence of 9 events and what their filing of the complaint -- all 10 the things that happened after that, as far as the 11 Railroad Commission is concerned. 12 Q. And when you say they weren't a party, are 13 you giving a legal conclusion about that, about what 14 the statutes mean and how they define who a party is 15 to a Railroad Commission proceeding? 16 A. No. 17 Q. If the statutes define their status as a 18 party based on the events that happened, you wouldn't 19 refute that -- 20 MR. RITTER: Objection, form. 21 Q. -- would you? 22 A. I would just have to look to see what you're 23 talking about. I don't have, you know, really an 24 opinion one way or the other. 25 Q. Okay. Had the Lipskys wanted to ask for a</p>

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1 postponement of the hearing, you don't know of
2 anything that would have precluded them from filing a
3 motion and asking for that kind of postponement, do
4 you?

5 MR. RITTER: Objection, form.

6 A. Other than my knowledge that they weren't a
7 party to the hearing, and it's been my experience that
8 those sorts of things are done by those that are
9 involved in the hearing.

10 But that's just based on my experience.

11 I don't know legally what the Lipskys
12 could have done or not done. But that's just, you
13 know, based on my almost 30 years' -- or 30 years'
14 experience working before the Railroad Commission.

15 Q. To your knowledge did the Lipskys ever show
16 up or participate in any hearings before the Railroad
17 Commission in this matter?

18 A. I don't know.

19 Q. Would it change your opinion if they had?

20 A. Opinion about what?

21 Q. About whether they could appear and ask for
22 relief from the Railroad Commission in this particular
23 matter.

24 A. No.

25 Q. As you sit here today, it's your testimony

1 Q. Have you ever heard that term before?

2 A. I've heard the term.

3 Q. You don't know what it means?

4 A. Well, I suppose that it could mean a lot of
5 things, depending on the context it's being used. But
6 I've heard the term before.

7 Q. Do you know what it means in the context of
8 Railroad Commission hearings?

9 A. Not specifically. I don't know that I've
10 ever been involved in anything that -- at least to my
11 recollection, that dealt with that.

12 I've heard it discussed about a
13 collateral attack on the Commission's rules, where
14 perhaps someone is trying to go behind the rules to
15 get something.

16 But I don't specifically recall ever
17 having dealt with that in the matters that I've been
18 involved in at the Commission.

19 I think you and Mr. Richter discussed
20 that last week. I think he probably had a better
21 explanation for you than I do.

22 Q. You're not -- you're not providing any
23 opinions on the Collateral Attack Doctrine or whether
24 it applies or doesn't apply in this case?

25 A. No.

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1 that you were never a part of any conversation at any
2 time with the Lipskys or their lawyers or anyone else
3 in which there was any discussion about whether to
4 present evidence at the Railroad Commission hearing?

5 A. I don't recall ever having a conversation
6 with the Lip -- well, I know I didn't with the
7 Lipskys, because I've only met and talked with them
8 one time; and that was after the hearing.

9 But I don't recall any conversation
10 with Mr. Stewart, Mr. Ritter, Mr. Soule about any of
11 those things.

12 Q. Do you deny that any such conversation could
13 have happened, or you just don't recall it as you sit
14 here today?

15 A. Well, I don't recall that ever being
16 discussed.

17 Now, does that mean I'm denying that it
18 could have happened? Well, I don't think it
19 happened, because I don't remember it happening. So I
20 guess by virtue of that -- and if that means I'm
21 denying it, then I guess I'm denying it. But if I
22 don't remember, I don't remember.

23 Q. Do you have any knowledge or information
24 about the Collateral Attack Doctrine?

25 A. No.

1 Q. You're not a lawyer, are you, sir?

2 A. No.

3 Q. No one at PGH is a lawyer?

4 A. No.

5 Q. Do you oversee the work that Mr. Richter
6 does at PGH?

7 A. Not all of the work. But I know he works on
8 some of his own projects and some of his own clients,
9 and I typically don't get involved in those.

10 But, generally, if it's something that
11 we're working on together or I've gotten him to help
12 me on, then I would, yes.

13 Q. In this particular matter have you overseen
14 the work that Mr. Richter has done?

15 A. I wouldn't characterize it as being
16 overseen. I've worked with him -- he's kind of taken
17 the ball and ran with it.

18 We've had discussions, bounced ideas
19 off of one another, things of that sort.

20 So I guess if that's what you mean by
21 me overseeing his work, then I guess I have. But I
22 don't look at it that way. I mean, we've worked
23 together on it.

24 Q. Have you been asked to provide an affidavit
25 in this case?

11 (Pages 41 to 44)

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<p>1 A. No.</p> <p>2 Q. Were you present when anyone -- or there was</p> <p>3 any conversation about providing an affidavit in this</p> <p>4 matter?</p> <p>5 A. Was I present?</p> <p>6 Q. Yes, sir.</p> <p>7 A. Yes.</p> <p>8 Q. When was that?</p> <p>9 A. Well, specifically, I couldn't tell you. I</p> <p>10 know that it probably came up, I'm gonna guess,</p> <p>11 sometime in October, perhaps. Early October. And I'm</p> <p>12 not even sure -- it was with one of Mr. Lipsky's</p> <p>13 attorneys; I'm not even sure which one.</p> <p>14 But we were contacted about providing</p> <p>15 an affidavit, and so I was present for that</p> <p>16 conversation. Or involved in that conversation.</p> <p>17 Q. Was that a person-to-person meeting or a</p> <p>18 phone call?</p> <p>19 A. It was a phone call.</p> <p>20 Q. Tell me about that phone call.</p> <p>21 A. Well, I mean, I don't specifically recall</p> <p>22 the exact words of the call. But, basically, we were</p> <p>23 told that we were going to need -- that they were</p> <p>24 going to need us to prepare an affidavit.</p> <p>25 I believe we were told it primarily</p>	<p>1 too -- a lot of time reviewing the Commission hearing,</p> <p>2 the transcript, various depositions that were taken,</p> <p>3 the hearing exhibits, that sort of thing.</p> <p>4 Q. And this occurred in -- you think, in</p> <p>5 October?</p> <p>6 A. Again, to the -- to the best of my</p> <p>7 recollection, it would have been early October. It</p> <p>8 may have been late September.</p> <p>9 The only reason I say that, I know that</p> <p>10 I had a lot going on in September and October. So it</p> <p>11 could have been the latter part of September, early</p> <p>12 October time frame.</p> <p>13 I guess, just from looking at these</p> <p>14 invoices, it looks like it probably would have been</p> <p>15 late September. Because is -- there is some time in</p> <p>16 September.</p> <p>17 Q. At what point in time were -- at what point</p> <p>18 in time did you and Mr. Richter reach any conclusions</p> <p>19 about the cause of natural gas in the Lipskys' water</p> <p>20 well?</p> <p>21 A. At what time did we reach conclusions?</p> <p>22 Q. At what point in time? Was it October? I</p> <p>23 mean, when -- I'm asking you, when did you reach any</p> <p>24 conclusions about the cause of natural gas in the</p> <p>25 Lipskys' water well?</p>
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<p>1 dealt with the Railroad Commission hearing.</p> <p>2 I do recall that at the time I told</p> <p>3 them, given my workload and schedule and other</p> <p>4 commitments at that time, that I wasn't going to</p> <p>5 really be able to work on it, that we were going to</p> <p>6 have to get Buddy to do the affidavit.</p> <p>7 And as a result, you know, he was the</p> <p>8 one who did the affidavit.</p> <p>9 But, just generally, that's what I</p> <p>10 recall about the conversation.</p> <p>11 Q. And this was in early October?</p> <p>12 A. To the best of my recollection, that's when</p> <p>13 it would have been.</p> <p>14 Q. What work still had to be done in early</p> <p>15 October before an affidavit could be signed by you or</p> <p>16 Mr. Richter?</p> <p>17 A. Really at that -- at that point in time, we</p> <p>18 really hadn't worked on the matter, to my knowledge,</p> <p>19 for several months. Maybe even longer.</p> <p>20 So I think the work that had to be done</p> <p>21 was primarily refreshing our memory on what had taken</p> <p>22 place.</p> <p>23 It was a lengthy Railroad Commission</p> <p>24 hearing with a lot of exhibits, so I know that we had</p> <p>25 to spend -- I know that Buddy spent -- and I did,</p>	<p>1 A. Well, I think it's evolved over time. I</p> <p>2 think primarily it's going to be sometime after the</p> <p>3 Railroad Commission hearing. Because, really, the</p> <p>4 source of all of our data that we had to look at has</p> <p>5 been the presentation at the Railroad Commission. As</p> <p>6 well as the other documents that we pulled; the well</p> <p>7 records and things like that.</p> <p>8 But I think probably as early as</p> <p>9 February, we had reached our opinion that there was an</p> <p>10 issue with the cementing and the uncemented interval</p> <p>11 in the -- both the Teal and the Butler wells.</p> <p>12 But that kind of evolved over time as</p> <p>13 we gathered the data, looked at the data, you know,</p> <p>14 read the testimony, pulled all of the public data that</p> <p>15 we could get our hands on, and just kind of started</p> <p>16 putting that together.</p> <p>17 Q. Was there ever a point in time where you or</p> <p>18 Mr. Richter told Mr. Stewart or anyone in his office</p> <p>19 that you would have to have at least about 60 days to</p> <p>20 prepare an affidavit and be able to solidify your</p> <p>21 opinions in that sort of document?</p> <p>22 A. No. Not that I recall. I didn't do that.</p> <p>23 Q. To your knowledge has there ever been any</p> <p>24 discussion with any of the lawyers about needing</p> <p>25 additional time to prepare or solidify your opinions</p>

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<p>1 in this case?</p> <p>2 A. No. But you have to understand that our</p> <p>3 work to date has been based upon, basically, publicly</p> <p>4 available data. To my knowledge there hasn't been any</p> <p>5 discovery of Range's files.</p> <p>6 So, clearly, you know, in the</p> <p>7 litigation, presumably there would be that sort of</p> <p>8 thing and that data. But, you know -- but up until</p> <p>9 now, it's all been based on publicly available data.</p> <p>10 And, you know, we basically had our opinions</p> <p>11 formulated, you know, probably back February-March</p> <p>12 time frame.</p> <p>13 But, again, like I told you, you know,</p> <p>14 there were several months there that, you know, we</p> <p>15 didn't even look at the case. No work was being done.</p> <p>16 And, you know, when you drop things and they come back</p> <p>17 up, you more or less have to reeducate yourself.</p> <p>18 Because, I mean, I do good to remember what I did last</p> <p>19 week, much less several months ago.</p> <p>20 So there clearly had to be that sort of</p> <p>21 work done. But that's not, in my opinion, doing the</p> <p>22 study to reach your conclusions. It was basically</p> <p>23 reviewing what was done to reinforce the -- if you</p> <p>24 will, the conclusions that you had reached.</p> <p>25 Q. Have you had occasion to review or have you</p>	<p>1 info, I believe, would refer to the EPA order that</p> <p>2 they issued.</p> <p>3 Q. Had you -- have you read the Powell Barnett</p> <p>4 Shale newsletter?</p> <p>5 A. I have.</p> <p>6 Q. Did you-all print off a copy of that or put</p> <p>7 it in your files, or did you just read it online or</p> <p>8 what?</p> <p>9 A. Well, I know we subscribe to the newsletter,</p> <p>10 or did. I haven't seen it recently to know if we</p> <p>11 still subscribe or not.</p> <p>12 But I typically don't print those out.</p> <p>13 But -- so, if -- you know, I don't know how</p> <p>14 Mr. Richter would have read it. But I think mine</p> <p>15 would have been online, my reading of it. But --</p> <p>16 Q. What's your recollection of what Mr. Powell</p> <p>17 published relating to this particular matter that you</p> <p>18 read?</p> <p>19 A. I really don't have a recollection from</p> <p>20 reading the Powell newsletter itself.</p> <p>21 Now, in preparing for my deposition, I</p> <p>22 went back and reread some of the depositions of the</p> <p>23 various people. And I know it was discussed -- I</p> <p>24 think it was Mr. Peck, perhaps. It was discussed, you</p> <p>25 know, at length in his depo.</p>
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<p>1 reviewed any depositions of the EPA regarding its</p> <p>2 order that it issued in this matter?</p> <p>3 A. I have not reviewed those depositions.</p> <p>4 Q. Have they ever been in the possession of</p> <p>5 your company, PGH?</p> <p>6 A. The EPA depositions?</p> <p>7 Q. Yes, sir.</p> <p>8 A. I don't recall seeing them. But I guess for</p> <p>9 me to be sure, I'd probably need to look. But I don't</p> <p>10 recall ever receiving those.</p> <p>11 Q. Let's look at Exhibit 29, and I want to ask</p> <p>12 you a few questions about some of the entries on this.</p> <p>13 You see the first entry for January</p> <p>14 3rd, 2011, that's for Mr. Richter?</p> <p>15 A. I do.</p> <p>16 Q. Do you see where it says, read Powell and</p> <p>17 EPA info?</p> <p>18 A. Yes.</p> <p>19 Q. Do you know what that refers to?</p> <p>20 A. I believe I do.</p> <p>21 Q. What is that?</p> <p>22 A. Well, the -- "Powell," I believe, refers to</p> <p>23 the Barnett Shale newsletter that's published by</p> <p>24 Mr. Powell.</p> <p>25 And the EPA -- and the reference to EPA</p>	<p>1 So that's kind of my recollection of</p> <p>2 what it said. But that's from the depo, not from the</p> <p>3 newsletter.</p> <p>4 Q. What's your recollection of what Mr. Powell</p> <p>5 said or concluded?</p> <p>6 A. Well, again just based upon my review of the</p> <p>7 deposition transcript, I believe what Mr. Peck was</p> <p>8 saying is that Mr. Powell incorrectly quoted him as</p> <p>9 saying -- to be honest, I'm -- we'd probably just need</p> <p>10 to pull out that deposition transcript, because I</p> <p>11 don't want to misquote him because apparently he's</p> <p>12 already been misquoted.</p> <p>13 But I know that Mr. Peck, at least on</p> <p>14 the face of the transcript, appeared to be pretty</p> <p>15 upset about what Mr. Powell had said that he said, and</p> <p>16 wanted to be clear that he was misquoted.</p> <p>17 Q. Okay. And maybe my question wasn't clear.</p> <p>18 I'm not asking you about what Mr. Peck said or didn't</p> <p>19 say.</p> <p>20 I'm asking you about this Powell</p> <p>21 information that's in your billing statements. And</p> <p>22 you've said you read it; you read what Powell had</p> <p>23 said.</p> <p>24 What do you recall about what he said?</p> <p>25 That's my question to you.</p>

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<p>1 A. As I sit here now, I don't recall. I would 2 have read that probably back in January or February. 3 So I don't specifically recall what Mr. Powell said in 4 the newsletter as I sit here. 5 Q. Do you recall any report that he wrote about 6 the particular matter at hand: natural gas in the 7 Lipsky water well and what his investigation had 8 revealed in terms of a cause? 9 A. I recall generally that there was something 10 like that in there. I don't recall any specifics or 11 anything like that. 12 Q. Do you recall him concluding that any 13 natural gas in the Lipsky water well had occurred as a 14 result of natural occurrences? 15 A. I don't -- I don't recall that specifically. 16 Q. Have you ever talked to Mr. Powell about his 17 conclusions in connection with that matter? 18 A. No. 19 MR. SIMS: I see that we need to change 20 the tape, so why don't we take this opportunity to 21 take a break. And if it's okay, we'll maybe go till 22 about 12:30 and then we'll take a lunch break. 23 THE WITNESS: Okay. 24 MR. SIMS: Is that good? Thank you. 25 THE VIDEOGRAPHER: We are off the</p>	<p>1 data? 2 A. Yes. 3 Q. Can you tell us what -- specifically what 4 data you have reviewed in connection with this matter 5 from the Railroad Commission hearing? 6 A. I have reviewed both transcripts, and not 7 all but a lot of the exhibits that were presented. 8 I believe there were some depositions 9 that were entered into the record at the hearing. I'm 10 not sure I -- I know I've looked at or read at least 11 three of those depositions. I seem to recall there 12 were four. I can't remember what the fourth one was, 13 but I reviewed or read Peck, Malone, and Lipsky. 14 And I've read the Final Order, the PFD, 15 the closing statements. 16 I believe that's it. 17 Q. Have you read the materials that the 18 Railroad Commission took judicial notice of during the 19 hearing? 20 A. Refresh my memory on what those were. 21 Q. The investigation file? 22 A. I have seen some of that. I don't know that 23 I've reviewed it all. 24 That's going to be the stuff that was 25 filed in December, correct? I think we talked about</p>
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<p>1 record at 11:28 AM.) 2 (Whereupon a short recess was taken.) 3 THE VIDEOGRAPHER: We're back on the 4 record at 11:40 AM. This is Tape 2. 5 BY MR. SIMS: 6 Q. Mr. Gore, during the break that we just had, 7 did you have an opportunity to talk with Mr. Richter 8 and/or Mr. Ritter? 9 A. Yes. 10 Q. And what did y'all talk about? 11 A. Well, Buddy asked about, what is a Daubert 12 Motion; so I explained that to him. 13 Mr. Ritter emphasized to me to not 14 assume things in your questionings, especially like on 15 the notes. If I didn't know, I should state I didn't 16 know. 17 We talked about lunch. 18 What else? I guess that's it. 19 Q. Have you told me everything you can recall 20 about the -- what you read in the Powell Barnett 21 newsletter related to this matter? 22 A. Yes, I believe so. 23 Q. If you will look at the February entry on 24 your billing statements, do you see on February 7, 25 2011, it says, review Railroad Commission hearing</p>	<p>1 that -- or you did last week with Mr. Richter. 2 I probably have looked at most of that, 3 if not all of it. 4 Q. Have you reviewed -- do you know when the 5 Railroad Commission began investigating the Lipsky 6 complaint with respect to the water well? 7 A. I don't. Not precisely, I don't. 8 Q. Have you -- have you looked at any materials 9 prior to December of 2010 related to the Railroad 10 Commission's investigation of this matter? 11 A. Well, not unless -- in the information that 12 was submitted to the Commission in December, if any of 13 that had to do with time periods prior to December, 14 then I would have. 15 But I don't recall anything other than 16 that. 17 Q. Do you have any understanding of whether the 18 Railroad Commission keeps its own files related to its 19 investigation of particular matters as the 20 investigation is ongoing? 21 A. Well, I know -- or I believe that there are 22 files kept at the district office from the various 23 inspection reports, things of that nature. 24 Is that what you're referring to? 25 Q. I'm simply -- I'm simply asking you if you</p>

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1 have made an effort or anyone in your -- in PGH has
2 made an effort to review all of the materials that the
3 Railroad Commission took judicial notice of during the
4 hearing. Or do you know?

5 A. Well, I can tell you what I looked at. I
6 can't speak to what everyone else in the firm has
7 looked at.

8 And, again, I don't specifically recall
9 what the Commission took judicial -- or was requested
10 to take judicial notice of.

11 If it was the inspection reports and
12 the materials that were filed in December, then yes, I
13 have looked at that.

14 If there were other things, then you're
15 just going to have to tell me what those are for me to
16 give you an answer or tell you if I recall looking at
17 it.

18 Q. Do you know if your company, PGH, has
19 obtained all of the information available from the
20 Railroad Commission related to its investigation of
21 the Lipsky complaint of natural gas in the water well?

22 A. Well, our intent was to obtain copies of
23 everything.

24 Could something have slipped through
25 the cracks? Perhaps. But that -- all I know is, our

1 your staff prepare, an outline of the project on or
2 about February 8, 2011?

3 A. Not to my knowledge. Like a written
4 outline?

5 Q. Yes, sir.

6 A. No, not to my knowledge. I didn't.

7 Q. Tell us, if you will, what was discussed and
8 what was the outline of the project that you discussed
9 with the staff on February 8, 2011.

10 A. Well, I don't specifically recall that
11 meeting with the staff on February the 8th. But just
12 reading my entry there on my time, when I say outline
13 project, it means we get together, we talk about
14 here's what we need to do. Here's the data that we
15 need to gather. Here's where we need to go look for
16 it. Let's get copies of this or that or whatever.

17 That's typically what I mean when I
18 make this sort of entry, as opposed to some written
19 outline with Roman Numeral I and bullet points or
20 whatever.

21 But -- so, again, on February the 8th
22 that's presumably what I would have done with the
23 staff that was working on the project, is we got
24 together and discussed: Okay, let's get copy of this
25 data. Let's locate wells. Let's get well files.

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1 intent was to obtain the entire record of the Railroad
2 Commission. And without going, you know, file by
3 file, paper by paper to see if we have it, then I
4 really can't answer that question.

5 But clearly that was -- that was our
6 intent.

7 Q. As you sit here today, though, you've never
8 seen the deposition of -- or never reviewed the
9 deposition of the EPA?

10 A. I have not reviewed it, and I'm not even
11 sure I've seen a copy of it.

12 Q. Do you have any knowledge of whether that
13 was made a part of the Railroad Commission hearing
14 record?

15 A. Not specifically, no.

16 I know those -- I believe those
17 depositions were taken in December, leading up to the
18 Commission Hearing; but I don't know precisely whether
19 it was included or not.

20 Q. Look at the entry on February 8, 2011, for
21 you that says, among other things: Discuss and
22 outline project with staff.

23 Do you see that?

24 A. I do.

25 Q. Did you -- did you prepare, or did anyone on

1 That sort of thing.

2 Q. And as of February 8, 2011, what was the
3 assignment that you told the staff as it was relayed
4 to you by Mr. Stewart or others that you had
5 communicated with at that point?

6 A. Well, I guess what we were asked to do was
7 perform a study to determine if we could determine the
8 cause of the natural gas in the Lipsky water well.

9 So, what we would have -- what the
10 staff -- me and my staff would have discussed and what
11 I would have outlined is, what information do we need
12 to gather to go about that task.

13 You know, the well files; what sort of
14 radius do we want to look at out from the Lipsky well?

15 Let's identify all the producing wells
16 in the area. Where are they, what fields are they in?

17 Let's pull that data and assemble it to
18 see if we can start piecing together a -- an answer to
19 the question of: Can the gas in the Lipsky water well
20 be explained, and is there a cause for it?

21 So that's what that would have
22 entailed.

23 Q. Did part of your investigation include
24 looking for or trying to determine whether natural gas
25 had appeared in the aquifer or other water wells prior

15 (Pages 57 to 60)

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1 to the time Range drilled its water wells?
2 **A. Did part of our investigation involve that?**
3 **Q. Yes, sir.**
4 **A. Well, it did to the extent that we had the**
5 **knowledge from the data that had been presented to the**
6 **Commission that there were other water wells in the**
7 **area that had some evidence of natural gas in them,**
8 **and the timing of that.**
9 **So, you know, we did collect that data**
10 **and review it.**
11 **Q. Had that information not been in the**
12 **Railroad Commission hearing, would that have been**
13 **important information for you to go out and**
14 **independently investigate?**
15 **A. I don't -- I don't know until -- I mean, I**
16 **wasn't faced with that question; so, you know, I**
17 **haven't really thought about it.**
18 **I think -- I think it probably would**
19 **have been important because, to me, it's the timing**
20 **and the sequence of events and what's happened; and**
21 **are those wells similar to the Lipsky well or not.**
22 **So I think the answer to your question**
23 **is, yes, it would have been important to know as much**
24 **as you could know about those other water wells.**
25 **Q. What did your investigation reveal about the**

1 **Q. Did you or anyone in your company, PGH,**
2 **investigate how that natural gas got to the Hurst**
3 **water well?**
4 **A. Well, on -- again, only from the public**
5 **record and the geological evidence that was presented**
6 **to the Commission about there being natural gas on**
7 **some level present in the aquifer in this area.**
8 **So that was the extent of what we've**
9 **been able to do, is just look at the publicly**
10 **available data. And that is primarily composed of,**
11 **you know, the file at the Railroad Commission.**
12 **Q. From that information did you conclude that**
13 **the natural gas in the Hurst water well was there as a**
14 **result of natural causes?**
15 **A. I didn't look at the Hurst well to -- in**
16 **order to make a determination whether it was natural**
17 **or not natural.**
18 **It was -- you know, it was really kind**
19 **of just the factual situation of: They drilled the**
20 **well. There was gas.**
21 **I didn't look to see what potential**
22 **sources, other than reviewing the exhibits and the**
23 **testimony at the Commission Hearing where Range**
24 **explained that the way the geology works, with the**
25 **communication between the Strawn and the aquifer, that**

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1 Hurst water well that had natural gas in it prior to
2 the time Range drilled either the Butler or Teal
3 wells?
4 **A. Well, Mr. Richter is probably better at**
5 **that, the specifics, because he's studied it a lot --**
6 **in more detail than I have, because he wrote the**
7 **affidavit.**
8 **But my recollection is our study of the**
9 **Hurst well was basically based on the information that**
10 **was provided in the public record at the Railroad**
11 **Commission.**
12 **What I recall about that well is, it**
13 **made gas on day one when they drilled it. If I**
14 **remember right, it's the one -- it's the well with the**
15 **picture where they lit the flare as soon as that well**
16 **was drilled.**
17 **So that's what I know about the Hurst**
18 **well.**
19 **That gas apparently only lasted a very**
20 **short time. I think in Mr. McBeath's testimony at the**
21 **Railroad Commission, the gas dissipated. It would no**
22 **longer light and was barely detectable within a month**
23 **or so after the initial drilling of the well.**
24 **So that's what I recall about the Hurst**
25 **well and at least my investigation into it.**

1 **gas could actually migrate into the aquifer from the**
2 **Strawn and would be present there on some levels**
3 **naturally.**
4 **But beyond that, like I said earlier,**
5 **we haven't gone through what I would consider the**
6 **discovery process. And so, what our study is limited**
7 **to is what is available publicly, and so that's what**
8 **we've reviewed.**
9 **Q. Did you or Mr. Richter or anyone at PGH**
10 **undertake any kind of study to refute or rule out that**
11 **the natural gas in the Hurst water well could not have**
12 **been there from natural sources?**
13 **A. Our focus was not the Hurst well. The data**
14 **that we gathered, it was a -- basically a fact-finding**
15 **mission.**
16 **There was gas in the well. We noted**
17 **that. We looked at the information as far as when it**
18 **was there, how much was there, what happened, when did**
19 **it go away, is it still a problem today; those sorts**
20 **of things.**
21 **But beyond that the Hurst well really**
22 **wasn't our -- the focus of our study. It was a part**
23 **of the study because it was in the area, but it was**
24 **not the focal point of the study.**
25 **MR. SIMS: Objection, nonresponsive.**

16 (Pages 61 to 64)

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<p>1 Q. Did you or Mr. Richter or anyone at PGH ever</p> <p>2 do anything to rule out that the natural gas in the</p> <p>3 Hurst water well could have been caused by natural</p> <p>4 sources?</p> <p>5 A. Did we do a study to rule out that it was</p> <p>6 caused by natural sources?</p> <p>7 Q. Yes, sir.</p> <p>8 A. No. The Hurst well was not the focus of our</p> <p>9 study.</p> <p>10 Q. As a part of your investigation, did you</p> <p>11 learn that there had been other water wells in the</p> <p>12 Silverado subdivision where the Lipskys live that had</p> <p>13 had natural gas in them prior to the drilling of the</p> <p>14 Butler and Teal wells by Range Resources?</p> <p>15 A. Yes.</p> <p>16 Q. Did you undertake any sort of investigation</p> <p>17 as to the cause of natural gas in those water wells?</p> <p>18 A. Well, the -- again, the investigation would</p> <p>19 have been the information that was on file at the</p> <p>20 Railroad Commission.</p> <p>21 So from -- the information from the</p> <p>22 water well drillers, the information presented at the</p> <p>23 hearing and that testimony, that was the extent of our</p> <p>24 investigation of those wells.</p> <p>25 And so it was basically a fact-finding</p>	<p>1 Q. Based on the information that you have</p> <p>2 reviewed regarding the water wells in the Silverado</p> <p>3 subdivision that had natural gas in them before the</p> <p>4 drilling of Range's Butler and Teal wells, have you or</p> <p>5 Mr. Richter or anyone else at PGH concluded from that</p> <p>6 information that the most likely source of that</p> <p>7 natural gas is from natural occurrences?</p> <p>8 A. I'm sorry. Repeat that.</p> <p>9 Q. In connection with your investigation of the</p> <p>10 water wells that had natural gas in them in the</p> <p>11 Silverado subdivision before the drilling of the -- of</p> <p>12 Range's Butler and Teal wells, did you or PGH or</p> <p>13 Mr. Richter conclude that the most likely source of</p> <p>14 the gas in those water wells was from natural sources?</p> <p>15 MR. RITTER: Objection, form.</p> <p>16 A. I'm not sure what you mean by natural</p> <p>17 sources. Could you explain that for me?</p> <p>18 Q. What's your understanding of Range's</p> <p>19 explanation at the Railroad Commission hearing as to</p> <p>20 how the gas got into the Hurst well, the Oujesky well,</p> <p>21 these other water wells in the Silverado subdivision</p> <p>22 that predated the drilling of the Range's Butler and</p> <p>23 Teal wells?</p> <p>24 A. My understanding of their explanation was</p> <p>25 that the Pennsylvanian beds, the Strawn beds dip at an</p>
Page 66	Page 68
<p>1 mission of: Did -- you know, did the wells produce</p> <p>2 gas or not? For how long? When did they produce</p> <p>3 gas? Do they still produce gas today? Is it still</p> <p>4 a problem?</p> <p>5 So that was the extent of our</p> <p>6 investigation.</p> <p>7 Q. Did you or Mr. Richter or anyone at PGH come</p> <p>8 to any conclusions about the cause or source of</p> <p>9 natural gas in the other water wells in the Silverado</p> <p>10 subdivision that pre-existed the Range Butler, and</p> <p>11 Teal gas wells?</p> <p>12 A. We did not do an independent study of that.</p> <p>13 I mean, we -- like I said, we gathered the data that</p> <p>14 was presented, that was on file at the Railroad</p> <p>15 Commission.</p> <p>16 We looked at the geology and everything</p> <p>17 that was presented by the Range witnesses that would</p> <p>18 explain the natural occurrence of gas in the aquifer.</p> <p>19 So that was the extent of our</p> <p>20 investigation because, again, we haven't been privy to</p> <p>21 things that are -- that are in Range's files or</p> <p>22 anything like that. So we're limited to the publicly</p> <p>23 available data.</p> <p>24 So that was the extent of the</p> <p>25 investigation.</p>	<p>1 angle and basically opposite of the aquifer, the</p> <p>2 Trinity; and that when the two intersect, there's an</p> <p>3 unconformity.</p> <p>4 So basically you have Strawn against</p> <p>5 Trinity. So there is a conduit, if you will, for</p> <p>6 natural gas that would be in the Strawn formation to</p> <p>7 migrate into the aquifer.</p> <p>8 And so it's my understanding that</p> <p>9 Range's explanation is that because of this, the way</p> <p>10 the beds are laid down in this angular unconformity,</p> <p>11 that the Strawn gas is able to migrate into the</p> <p>12 aquifer. So when some water wells are drilled, you</p> <p>13 know, you might encounter gas; and the source would be</p> <p>14 from the Strawn.</p> <p>15 That's my understanding of their</p> <p>16 presentation.</p> <p>17 Q. Do you have any opinions about whether</p> <p>18 natural or -- natural gas occurs in the Strawn</p> <p>19 formation in the area of the Lipsky water well?</p> <p>20 A. Do I have an opinion?</p> <p>21 Q. Yes, sir.</p> <p>22 A. Yes, I do.</p> <p>23 Q. And what is your opinion?</p> <p>24 A. It does occur.</p> <p>25 Q. And do you have opinions about whether</p>

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<p>1 natural gas occurs in the Strawn formation in the area 2 of the Lipsky water well naturally? 3 A. As opposed to unnaturally or -- I mean, I 4 guess naturally -- I'm having a problem with what you 5 mean by naturally. 6 Q. Do you have an opinion about whether the 7 Strawn gas -- or the gas that's in the Strawn 8 formation has occurred there over geologic time as a 9 result of natural causes? 10 A. The Strawn formation is a known gas-bearing 11 and -producing formation in this area. That gas has 12 been formed and has migrated there over geologic time. 13 Is that what you mean by naturally 14 occurring? 15 Q. Yes, sir. 16 A. Okay. Then, yes, it does occur naturally. 17 Q. Okay. And based on your review of the 18 testimony from the Railroad Commission hearing, it's 19 your understanding that there are conduits formed by 20 the geology in the area of the Lipsky water well that 21 allow that natural gas from the Strawn formation to 22 migrate into the water aquifer -- 23 MR. RITTER: Objection, form. 24 Q. -- is that correct? 25 A. It is my understanding that there -- I</p>	<p>1 Examiner, if you will. All I can rule on is what's 2 before me. And based on that, Range in my opinion 3 offered a reasonable explanation as to the geology and 4 the angular unconformity and how Strawn gas could 5 migrate into the aquifer. 6 But, again, you know, that's just based 7 on the -- you know, what's on the face of the page. 8 But it appeared reasonable to me based on that. 9 Q. As I understand your testimony as you sit 10 here today, neither you nor PGH nor anyone else at PGH 11 has done any studies to refute or -- Range's 12 reasonable explanation? 13 MR. RITTER: Objection, form. 14 A. Of that geology? 15 Q. Right. 16 A. No, we haven't. 17 Q. As you sit here today then, based on what 18 you know, is the most likely source of natural gas in 19 the water wells that pre-existed the drilling of the 20 Range's Butler and Teal wells from Strawn gas that's 21 naturally occurring in the water aquifer? 22 MR. RITTER: Objection, form. 23 A. Other than the Lipsky well, yes. 24 Q. Did you or anyone at PGH have any 25 conversations with Mr. Hurst or Mr. Oujesky or any of</p>
Page 70	Page 72
<p>1 believe they described it as a plumbing system, that 2 there are pathways that -- by which gas could migrate 3 into the aquifer from the Strawn. 4 Q. Have you done any investigation to refute 5 that testimony or that conclusion? 6 A. No. 7 Q. Do you have any reason as you sit here today 8 to refute or conclude that that testimony is 9 incorrect? 10 A. No. 11 Q. Do you believe that that testimony is 12 accurate as you sit here today regarding the geology 13 in the area allowing natural gas from the Strawn 14 formation to migrate into the water aquifer in and 15 around the Lipsky property? 16 MR. RITTER: Objection, form. 17 A. Is it reasonable to conclude that; is that 18 your question? 19 Q. Do you believe it's reasonable to conclude 20 that? 21 A. Well, again, my knowledge is based upon what 22 was presented at the Commission. I haven't been privy 23 to all of the underlying documents to see how they got 24 there. 25 So in some ways I'm like the Hearing</p>	<p>1 the other folks that have had natural gas in their 2 water wells in the Silverado subdivision? 3 A. No. 4 Q. Did you become aware, in your review of the 5 Railroad Commission records, that there has been 6 natural gas in a public water supply about a mile to 7 the east of Mr. Lipsky's water well called the Lake 8 Country Acres water supply? 9 A. I recall that from the depositions and the 10 Railroad Commission hearing presentation. 11 Q. And did you become aware from that 12 information that, through publicly available 13 information, those water wells have had natural gas in 14 them going back to the mid-1990s? 15 A. That's what I recall from -- from, again, 16 what was in the public record and the deposition 17 transcripts. 18 Q. And based on everything you know as you sit 19 here today, do you believe that that -- that the most 20 likely explanation for natural gas in those water 21 wells is from naturally occurring sources? 22 MR. RITTER: Objection, form. 23 A. I can't answer that on each one of those 24 individual wells because I have not looked at those 25 wells on an individual basis and what was around those</p>

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1 at the time they were drilled.

2 But I do know that -- based on the
3 geology that Range presented, that, you know, the
4 conclusion was that with the dipping of the beds, the
5 angular unconformity, that the gas in the Strawn would
6 be able to migrate into the aquifer. And that would
7 explain the gas that was observed in these other
8 wells.

9 But I want to emphasize that we have
10 not looked at each one of those wells individually.
11 It's only, again, what's in the public record.

12 Q. Have you had any conversations with
13 Mr. Richter about these other water wells and the fact
14 that they've had natural gas in them before Range
15 drilled the Butler and Teal wells?

16 A. We've had those discussions, yes.

17 Q. And what have -- what have you talked with
18 Mr. Richter about those -- about those water wells?

19 A. Well, again, in -- I'm summarizing. But,
20 basically, we've talked about those wells, the fact
21 that there was natural gas in those wells from the
22 first day they drilled it.

23 We've talked about the difference --
24 the apparent difference between the gas in those wells
25 and what's been observed in the Lipsky well.

1 investigation as to the content or quantity of natural
2 gas in any of those water wells before Range drilled
3 the Butler and Teal wells?

4 A. Not to my knowledge.

5 Q. Have you made any sort of investigation --
6 you or anyone else at PGH made any sort of
7 investigation as to whether some of those folks even
8 knew that they had any natural gas in their water
9 wells before it was tested as a part of this Railroad
10 Commission proceeding?

11 A. No.

12 Q. As you sit here today, do you have any
13 knowledge of whether natural gas can be dissolved in
14 water without a human being even knowing it?

15 MR. RITTER: Objection, form.

16 A. I'm not sure I understand your question.

17 Q. As you sit here today, do you have any
18 knowledge one way or the other of whether natural gas
19 can be dissolved in water and, without some scientific
20 testing of the water, a human being may not know it?

21 A. Do I have any knowledge of that?

22 Q. Yes, sir.

23 A. Of what any other person might know?

24 Q. No. I'm asking you, do you know if natural
25 gas dissolved in water is detectable by human beings

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1 We talked about how those wells, the
2 other wells, had the presence of natural gas from the
3 first day they were drilled and how the Lipsky well
4 did not; how the gas problems in those wells has
5 dissipated over time, and the Lipsky wells has
6 actually not dissipated. It's perhaps even gotten
7 worse.

8 So we've had those conversations about
9 those other wells. You know, what was presented in
10 the depositions and at the hearing.

11 Q. In your review of the Railroad Commission
12 hearing, did you review any testimony or evidence
13 about the testing of numerous water wells in and
14 around the area of the Lipsky water well as a part of
15 the presentation of evidence at the hearing?

16 A. I do recall that, yes.

17 Q. And do you recall that many of the water
18 wells that were actually tested, that the evidence was
19 that many of those water wells did contain some amount
20 of dissolved natural gas in the water?

21 A. I recall -- I recall the exhibit more than
22 the exact testimony. But I do recall where there were
23 samples taken from a number of other water wells in
24 the area and what the results of those were.

25 Q. Have you or anyone at PGH made any sort of

1 without some scientific testing?

2 A. Do I know if it's detectable...

3 Well, I guess what I'm struggling with
4 is your use of the word "dissolved." Because gas --
5 you really can't dissolve gas and water very easily.
6 So there would be a minimal amount of gas that would
7 be in solution in the water.

8 So I think the gas that we're talking
9 about would not be dissolved gas but would be free
10 gas.

11 But, you know, I don't -- I mean, if
12 you're not looking for something, unless there's an
13 odor or you can see something, you know, I don't know
14 that you would test for it; so I wouldn't have any
15 idea if it would be there or not.

16 Q. Okay. And would you agree with me that
17 natural gas in its natural state is odorless?

18 A. I would -- well, it can be. It doesn't have
19 to be. I mean, you could have sulfur gas. You can
20 definitely smell that.

21 Q. Sulfur gas and methane are two different
22 things, aren't they?

23 A. But you didn't say methane. You said
24 natural gas.

25 Q. Okay. Well, would you agree with me that

19 (Pages 73 to 76)

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<p>1 methane is odorless?</p> <p>2 A. I would generally agree with that, yes.</p> <p>3 Q. And you saw from the Railroad Commission</p> <p>4 records that many of the water wells that were tested</p> <p>5 had methane dissolved in the water, didn't you?</p> <p>6 MR. RITTER: Objection, form.</p> <p>7 A. I think there were -- as I recall the</p> <p>8 exhibit, there were very small amounts that were</p> <p>9 detected in the testing.</p> <p>10 Q. And when you say small amounts, what are you</p> <p>11 referring to?</p> <p>12 A. Well, really, just the numbers that were</p> <p>13 reported in relationship to one another.</p> <p>14 I don't even remember the units that</p> <p>15 they were measuring it at, but just from the numbers</p> <p>16 that were reported, as you compared the numbers to</p> <p>17 each other, that it appeared to be very small.</p> <p>18 Q. Were you aware that when Range did its</p> <p>19 testing on Lipsky's water well, that he had split</p> <p>20 samples taken at the time and tested by another</p> <p>21 company?</p> <p>22 MR. RITTER: Objection, form.</p> <p>23 A. I vaguely recall that from the testimony,</p> <p>24 but I don't have any knowledge of it.</p> <p>25 Q. Have you -- have you been provided -- have</p>	<p>1 it was filed recently, but -- by Mr. Wheeler, that</p> <p>2 might have addressed some of that. But I don't have</p> <p>3 any direct knowledge or data addressing that issue.</p> <p>4 Q. Do you recall seeing in the Railroad</p> <p>5 Commission hearing that all of the water that was</p> <p>6 tested and all the results that were accumulated and</p> <p>7 presented at the hearing, that in every single water</p> <p>8 well that was tested, that the water was safe to</p> <p>9 drink?</p> <p>10 MR. RITTER: Objection, form.</p> <p>11 A. I don't remember seeing that.</p> <p>12 Q. As you sit here today, do you have any</p> <p>13 knowledge or information that would lead you to think</p> <p>14 that the water that was tested as a part of the</p> <p>15 Railroad Commission hearing was not safe to drink?</p> <p>16 A. Do I have any knowledge?</p> <p>17 Q. Yes, sir.</p> <p>18 A. No.</p> <p>19 MR. SIMS: It's about 12:30. Why don't</p> <p>20 we take our lunch break, be back about 1:30.</p> <p>21 MR. RITTER: Is there any way we do get</p> <p>22 a shorter lunch break?</p> <p>23 MR. SIMS: We could try to be back here</p> <p>24 by 1:15 if you'd like.</p> <p>25 MR. RITTER: Okay. Yeah, that'll work.</p>
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<p>1 these lawyers provided you any information from that</p> <p>2 testing that occurred back in late December or early</p> <p>3 January of 2011?</p> <p>4 A. I don't specifically recall that. I mean,</p> <p>5 we've got three boxes of data. So, without going</p> <p>6 through there to double check, I don't recall.</p> <p>7 Q. Do you recall, from your review of the</p> <p>8 Railroad Commission records, that the levels of</p> <p>9 dissolved methane in the Lipskys' water well water was</p> <p>10 well below any threshold published by the United</p> <p>11 States Government in terms of being at a danger level?</p> <p>12 MR. RITTER: Objection, form.</p> <p>13 A. Do I recall that testimony?</p> <p>14 Q. Yes, sir. Yes, sir.</p> <p>15 A. No.</p> <p>16 Q. Do you -- as you sit here today, do you have</p> <p>17 any knowledge or information about threshold levels of</p> <p>18 methane in water and when it can become dangerous, as</p> <p>19 published by the United States Government?</p> <p>20 A. Do I have any knowledge or information on</p> <p>21 that?</p> <p>22 Q. Yes, sir.</p> <p>23 A. Independently of anything else or...</p> <p>24 Q. Just, do you have any knowledge about it?</p> <p>25 A. No. I recall seeing an affidavit -- I think</p>	<p>1 Thanks.</p> <p>2 THE VIDEOGRAPHER: We are off the</p> <p>3 record at 12:26 PM.</p> <p>4 (Whereupon the luncheon recess was</p> <p>5 taken.)</p> <p>6 THE VIDEOGRAPHER: We're back on the</p> <p>7 record at 1:20 PM.</p> <p>8 BY MR. SIMS:</p> <p>9 Q. Mr. Gore, I noted in some of your time</p> <p>10 sheets that you had reviewed a report called -- that</p> <p>11 you refer to as Railsback report.</p> <p>12 Can you tell us what that is, please,</p> <p>13 sir?</p> <p>14 A. It was -- it was like a PowerPoint</p> <p>15 presentation that a -- his last name was Railsback. I</p> <p>16 think he was a geologist. A presentation he made at</p> <p>17 some function.</p> <p>18 I'm not sure, really, what it had to do</p> <p>19 with. But either Mr. Ritter or Mr. Stewart sent that</p> <p>20 to me to review. I thought it wasn't even in</p> <p>21 connection with this, but that's what it was.</p> <p>22 Q. Are you working with Mr. Stewart or</p> <p>23 Mr. Ritter on any other matters at the current time?</p> <p>24 A. No.</p> <p>25 Q. Have you ever worked with Mr. Stewart or</p>

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1 Mr. Ritter on any other matter?
2 A. No.
3 Q. Who is your client in this matter?
4 A. **In terms of who's paying my bills or --**
5 Q. Who do you consider to be your client?
6 A. **That's a good question. I would consider**
7 **the Lipskys to be my client.**
8 Q. Who's paying your bills?
9 A. **I think -- I would have to double check, but**
10 **I believe I'm being paid by the law firm.**
11 Q. Mr. Stewart's firm?
12 A. Yes.
13 Q. During the lunch break did you have an
14 opportunity to check to see if you have an engagement
15 agreement?
16 A. No, sir, I didn't.
17 Q. Who would you talk to about that, to
18 determine that?
19 A. **Well, I would have -- probably I would start**
20 **with my office manager. But then, more than likely,**
21 **it would just be -- well, I'm not sure where it would**
22 **be. So that's where I would start, with my office**
23 **manager, Brooke Johnson.**
24 Q. Brooke Johnson?
25 A. Yes.

1 **But it just did not look like it was a reasonable**
2 **presentation to me.**
3 Q. What is it about the presentation that you
4 thought was unreasonable?
5 A. **I couldn't tell you. I can't even tell you**
6 **how many slides there were. But -- and, you know, I'm**
7 **not necessarily saying the whole thing looked**
8 **unreasonable.**
9 **But there were just a few things that I**
10 **gleaned out of it that said, well, that doesn't look**
11 **reasonable.**
12 **I couldn't tell you what it was, you**
13 **know, without looking at it. But -- so I don't want**
14 **to lead you to the -- to the impression that I thought**
15 **the whole thing was unreasonable. But there were a**
16 **few slides that kind of jumped out at me as being**
17 **unreasonable.**
18 Q. When engineers provide opinion testimony,
19 are they required to adhere to certain standards in
20 connection with providing that testimony?
21 A. **Well, I would certainly think so, in some**
22 **regard.**
23 **I mean, are you talking about**
24 **engineering standards, legal standards, moral**
25 **standards? You know, what kind of standards are**

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1 Q. Is that a man or a woman?
2 A. **Woman.**
3 Q. Is there anything about the Railsback report
4 that you have relied on in connection with any of the
5 opinions or conclusions in this matter?
6 A. No.
7 Q. Have you had any conversations with
8 Mr. Railsback?
9 A. No.
10 Q. To your knowledge has anyone in PGH had any
11 conversations with Mr. Railsback?
12 A. **To my knowledge, no.**
13 Q. Did you have any conversations with
14 Mr. Ritter or Mr. Stewart about the Railsback
15 PowerPoint?
16 A. **I think, very brief.**
17 Q. And what did you talk to them about that?
18 A. **They asked me what I thought of the**
19 **presentation. And I told them that there were parts**
20 **of it that, for lack of a better word, look like BS to**
21 **me.**
22 **But it looked like it was very general**
23 **and kind of summary-type information, and it just**
24 **looked like it was not -- I don't know if realistic**
25 **or -- I'm not sure how I would describe it, really.**

1 **you -- are you referring to?**
2 Q. Are there engineering standards that govern
3 the provision of opinion testimony by engineers?
4 A. **I don't know of any published standards**
5 **that, you know, some sort of organization sets out.**
6 **Clearly, when -- you know, in different**
7 **parts of our business -- for example, reserve**
8 **evaluation work -- there are certain things that are**
9 **accepted practices and certain things that are not.**
10 **So those would be things that I would**
11 **consider to be standards that you would need to adhere**
12 **to when you're giving opinion testimony.**
13 **I don't know that there's necessarily**
14 **standards across the board other than, obviously, you**
15 **know, using reasonably accepted standards, standards**
16 **used in the industry, that sort of standard.**
17 Q. If a -- if a party or a person believes that
18 an engineer has violated engineering standards, is
19 there a board or agency that they go to, to make the
20 presentation of why they think those standards have
21 been violated?
22 A. **Well, there's -- there's the engineers board**
23 **in Texas, if you're a Registered Engineer.**
24 **I'm not sure if that's what you're**
25 **referring to.**

21 (Pages 81 to 84)

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1 There's, you know, the industry
2 organization that I guess that we as petroleum
3 engineers belong to, there are several. But the two
4 main ones are the Society of Petroleum Engineers and
5 the Society of Petroleum Evaluation Engineers.

6 I don't know of any board or review
7 process there where you would do such a thing.

8 Q. Do you have an opinion as to whether the
9 Lipsky water well, say as of January 2011, had
10 dissolved methane in the water?

11 A. There was gas, natural gas, in the Lipsky
12 well as far as I know. There has been since, you
13 know, it first appeared in -- when was it -- 2009 or
14 '10.

15 I don't believe that presence has gone
16 away, so I believe it would have been there in January
17 of 2011.

18 Q. And my question is specifically: Is it your
19 opinion that methane has been dissolved in the water
20 being drawn out of the Lipsky water well all -- during
21 all that time period?

22 MR. RITTER: Objection, asked and
23 answered.

24 A. Well, I don't know that we can answer "all
25 of that time period," because we don't have tests over

1 I think that those tests that I've seen
2 or that were referred to and presented to the Railroad
3 Commission would have been conducted prior to January
4 of 2011. I don't know of any specific tests that were
5 conducted during January of 2011.

6 Q. Well, let me -- let me ask it then for
7 December of 2010: Do you have an opinion as to
8 whether water wells in and around the Lipsky water
9 well had dissolved methane in them in December 2010?

10 A. Again, I don't recall the specific dates of
11 when the testing of those wells occurred.

12 If there were tests conducted in
13 December, then on that day when they sampled that
14 well, then there would have been.

15 But, again, I don't know of any well
16 that was sampled each and every day during December.

17 Q. Have you conducted any investigation as to
18 where the methane dissolved in the -- in the water, in
19 water wells other than the Lipsky water well, came
20 from in and around December 2010 or January 2011,
21 depending on when those tests were run?

22 MR. RITTER: Objection, form.

23 A. I'm not sure I understand the question.

24 Q. If I understand your testimony correctly,
25 you -- it is your opinion that a number of water wells

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1 all of that time period.

2 In my opinion there would be some small
3 amounts of gas dissolved in the water to the extent,
4 at these temperatures and pressures, you can have
5 dissolved gas in the water. That's going to be
6 limited.

7 I think there would also be free gas
8 that would be produced along with the water over this
9 time period.

10 Q. And when you say free gas, what are you --
11 what are you referring to?

12 A. Gas that is not dissolved in the water, that
13 it -- it is produced in the gaseous state. It exists
14 in the gaseous state in the well. And when it's
15 produced, it flows to the surface along with whatever
16 water will come along with it.

17 Q. Do you have an opinion as to whether, in
18 January of 2011, there were other water wells in the
19 Silverado subdivision and close-by areas that had
20 dissolved methane in that water?

21 A. Well, no, I don't.

22 I -- the -- I don't know the dates of
23 the testing. I don't know that testing was occurring
24 on a daily basis in those wells, and so I don't know
25 the answer to that.

1 around the Lipsky water well had dissolved methane in
2 the water when those wells were tested in or about
3 December 2010 or early January 2011, depending on when
4 they were tested?

5 MR. RITTER: Objection, form.

6 A. I don't think that's accurate.

7 Q. Okay. Well, do you -- my question initially
8 was: Do you have an opinion as to whether other water
9 wells, other than the Lipsky water well, had dissolved
10 methane in them when they were tested.

11 A. That wasn't your initial question. Your
12 initial question had to do with January of 2011.

13 I told you that those wells were
14 tested. I don't remember the date. I believe those
15 tests indicated there was some level of methane in the
16 water when they were tested.

17 I don't know if that was January, I
18 don't know if it was December, or when it was. But at
19 the time those tests were conducted, my recollection
20 is it indicated that there was methane in the water.

21 Q. Does it matter to you for any of your
22 opinions whether the tests were done in December 2010
23 or January 2011?

24 A. My opinion for what?

25 Q. Whatever you're providing opinions here on

22 (Pages 85 to 88)

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1 today.

2 MR. RITTER: Objection, form.

3 A. The tests were conducted when they were
4 conducted. I mean, that's a fact.

5 So, does it matter if they were
6 hypothetically conducted on a different day? I don't
7 know because I don't have those results, so I don't
8 know how to answer your question.

9 Q. Do you have any reason as you sit here today
10 to disbelieve the test results that showed dissolved
11 methane in water wells other than the Lipsky well
12 either in December 2010 or January 2011?

13 MR. RITTER: Objection, form.

14 A. If that's when those tests were conducted.
15 I have no reason to dispute that at all, whenever it
16 was tested.

17 Q. Have you or anyone else at PGH Engineers
18 made a determination as to the source of dissolved
19 methane in the water wells other than the Lipsky well?

20 A. Have we made a study of that?

21 Q. Have you determined the source of the
22 dissolved methane in the other water wells, other than
23 the Lipsky well?

24 MR. RITTER: Objection, form.

25 A. Not other than what we talked about this

1 Q. In terms of the free gas that you have --
2 you have talked about, have you done any sort of
3 analysis or independent study, other than what was
4 presented at the Railroad Commission, as to where
5 the -- as to where -- as to the source of any free
6 gas?

7 A. No. In all of my answers, in the work we've
8 done, I haven't distinguished between free gas or
9 dissolved gas.

10 We're looking at the natural gas; and,
11 thus, methane is a component of natural gas that
12 appears in the Lipsky water well.

13 And so, what we have evaluated is the
14 information presented to the Commission. I haven't
15 tried to distinguish the difference or the source of
16 either one, because I -- you know, as far as I know,
17 based on what I've seen today, the source is going to
18 be the same whether it's free or dissolved.

19 But I haven't tried to make that
20 distinction.

21 Q. In terms of the natural gas in the Lipsky
22 water well, I believe you testified that methane is a
23 component of that natural gas, is that fair?

24 A. Well, I believe natural gas, one of its
25 components is methane. Any natural gas that I know

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1 morning. And that is the presentation of Range at the
2 Railroad Commission and the geology that was presented
3 that showed that the Strawn formation does contain
4 natural gas, and thus methane, and that there are
5 pathways by which that natural gas can migrate into
6 the aquifer.

7 That is the extent of our investigation
8 to date, is that information.

9 Q. And when you say there are pathways by which
10 the natural gas in the Strawn can migrate into the
11 aquifer, have you done any sort of geological
12 investigation as to whether those pathways are
13 discrete or whether it is a widespread contact area
14 where this unconformity exists?

15 A. Again, our work is limited to what was
16 presented at the Commission. We haven't had the
17 opportunity, nor, as I understand it, has Range
18 provided all of the backup information that led to
19 their geologic study.

20 So we haven't done that work because we
21 don't have the data to do that work. It may be
22 something we do in the future. But what we have
23 today -- and I think I've been pretty clear -- is, our
24 work to date has been based upon publicly available
25 data that was presented to the Railroad Commission.

1 of. So when we're talking about the natural gas that
2 is present in the Lipsky well, one of the components,
3 or perhaps the major component, is methane.

4 But I typically don't, in my work,
5 break that down into the various components. It's --
6 I usually consider it to be natural gas.

7 Q. Okay. Do you know when Mr. Lipsky in -- do
8 you know when he -- when he constructed the water well
9 that was this -- involved in the Railroad Commission
10 hearing; do you know when that was built or
11 constructed?

12 A. The -- not precisely. I believe it was
13 sometime in 2005. You know, without going back to
14 some of the documents to get the precise date, I
15 believe that's when he had that well drilled.

16 Q. And following the drilling of that well, do
17 you have any knowledge or information as to whether
18 Mr. Lipsky had installed a purification system with
19 respect to the water well?

20 A. My -- I do have knowledge based upon my
21 reading of the various depositions and transcripts.
22 And it is my understanding that at some point he did
23 do that.

24 Q. And --

25 A. I'm not sure when.

23 (Pages 89 to 92)

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1 Q. Okay. Do you believe, from what all you've
2 read, that that was installed before Range drilled the
3 Butler and Teal wells?
4 A. I believe it would have been before.
5 Q. And are you -- or do you have expertise or
6 do you claim to have expertise with respect to water
7 wells and how they operate, and in particular, water
8 wells in this area of Parker County?
9 A. Yes and no. I think I would have some
10 general expertise on water wells. Not here in Parker
11 County.
12 Q. Do you have any knowledge of whether most
13 homeowners who have drilled water wells in this area
14 of Parker County have purification systems installed
15 with them?
16 A. I would have no idea.
17 Q. Do you have any knowledge of how the
18 purification system works and what it's designed to
19 do?
20 A. Any -- the purification systems installed in
21 Parker County?
22 Q. Yes, sir.
23 A. No.
24 Q. Are you familiar with holding tanks that are
25 typically installed with these water wells out in

1 A. No.
2 Q. Have you ever seen that before?
3 A. I have not.
4 Q. Do you know if that was installed as part of
5 the Lipsky water well purification system?
6 A. I remember reading in, again, some of the
7 transcripts about -- something about the bars in the
8 tank. But that would be the extent of my knowledge.
9 Q. Do you know if all these other holding tanks
10 out here in this area of Parker County, Silverado
11 subdivision, have these spray bars in connection with
12 the water wells?
13 A. No, sir, I don't.
14 Q. Do you have any idea of why the water goes
15 from the well, through these spray bars, and is
16 sprayed into the tank, as opposed to just running the
17 water directly into the tank?
18 A. No.
19 Q. At whatever point in time natural gas in the
20 water aquifer under the Lipskys' property got there,
21 whether it was millions of years ago or whether it was
22 in 2009, whatever point in time it got there, do you
23 have an opinion about whether it arrived there from
24 the north or the south or the east or the west or some
25 other combination of directions?

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1 Parker County in this Silverado subdivision and how
2 the water is moved from the well into the holding
3 tank?
4 MR. RITTER: Objection, form.
5 A. I am familiar with holding tanks and how
6 those generally work.
7 I don't know anything about how they
8 are used in Parker County and in this particular
9 subdivision.
10 Q. Tell me your understanding of holding tanks
11 and how they generally work.
12 A. Well, I know the one that I have at my house
13 is a 3,000-gallon tank.
14 My well, the pump will cut on, the
15 holding tank has a float in it. When it gets down,
16 the well -- the pump in the well will kick on. It
17 will pump water into the holding tank and shut off
18 once it gets full.
19 And from there you have another small
20 pump that pumps it to your pressure tank and into the
21 house.
22 Q. Okay. Do you have any -- on your holding
23 tank, do you have any spray bars at the top of the
24 tank where water is -- comes from the well, through
25 those spray bars, and is sprayed into the tank?

1 A. I don't have an opinion.
2 Q. In terms of any free gas that may have
3 arrived in the water aquifer under the Lipskys'
4 property, whether that was millions of years ago or
5 recently, do you have any opinion of whether that gas
6 arrived there from a particular direction?
7 MR. RITTER: Objection, form.
8 A. I don't have an opinion. I don't think we
9 have the data that would allow us to determine whether
10 or not molecules were -- were advancing into or toward
11 the Lipsky well from any particular given direction.
12 If we do, I haven't seen that
13 information in the public record; so at this point I
14 wouldn't have an opinion on that.
15 Q. What type of information would you -- would
16 you need to see to enable you to make that sort of
17 determination?
18 A. Well, the -- I'm not sure what all I would
19 need to do that. I would just need to think about it.
20 Some of the things that come to mind as
21 I sit here would be, you know, the available geologic
22 data in terms of well logs, dip meters, seismic data.
23 You know, those are some of the things that come to
24 mind.
25 And I'm not saying that that would

24 (Pages 93 to 96)

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<p>1 necessarily help you to make that determination. But 2 those would be some of the places that I would start 3 if I wanted to try to answer that question. 4 MR. SIMS: Mr. Gore, if we can, let's 5 trade books and get that one out of your way for the 6 time being. 7 He says we've got five minutes left on 8 the tape. Why don't we go ahead and let him change 9 that tape and -- 10 THE WITNESS: Okay. 11 THE VIDEOGRAPHER: We're off the record 12 at 1:52 PM. 13 (Whereupon a short recess was taken.) 14 THE VIDEOGRAPHER: We're back on the 15 record at 1:54 PM. 16 BY MR. SIMS: 17 Q. Mr. Gore, do you have in front of you 18 Deposition Exhibit 12? 19 A. I do. 20 Q. And is this a document that was put together 21 by your company, PGH Engineers? 22 A. Yes. I believe Mr. Richter put this 23 together. 24 Q. Do you know when this document was prepared? 25 A. No.</p>	<p>1 Q. And then if we go out a little further along 2 that, it shows that on both of those wells, there's no 3 cement on the Praying Mantis well from 331 feet down 4 to 4,706 feet? 5 A. Correct. 6 Q. And on the Cutwing Parachute Adams well, 7 there's no cement from 355 feet down to 5,304 feet? 8 A. Correct. 9 Q. Do you have an opinion about whether XTO 10 violated rule -- Statewide Rule 13 in connection with 11 either of these wells? 12 A. I do. 13 Q. And what is your opinion? 14 A. That they would be in violation of Statewide 15 Rule 13. 16 Q. Does your firm do any work for XTO? 17 A. We've done very little for XTO. 18 And I guess you're talking about XTO as 19 a separate entity from, you know, its parent now, 20 ExxonMobil. 21 We do, do work for ExxonMobil. We've 22 done a very minor amount of work -- in fact I'm not 23 even sure if we've billed any time -- on some XTO 24 projects. So, very little, if any. 25 Q. Which part of these XTO wells would be in</p>
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<p>1 Q. Does it appear to have a date down in the 2 right -- bottom right-hand corner? 3 A. There is a date. 4 Q. What is it; what is that date? 5 A. 2-1 of '11. 2-1-2011. 6 Q. What I want to call your attention to is in 7 the -- pretty much in the middle of the page, there 8 are a couple of XTO wells. Do you see those? There's 9 a Praying Mantis and a Cutwing Parachute Adams? 10 A. I do see that. 11 Q. All right. And do you see the column that's 12 highlighted there? It appears to be a column that 13 shows the depth of the surface casing for the XTO 14 Praying Mantis well at 3 -- it looks like 331 feet on 15 my piece of paper. Is that what it looks like on 16 yours? 17 A. Yeah, it does. 18 Q. And on the other XTO well -- and by the way, 19 these are -- these are horizontal Barnett Shale wells 20 that are represented to be within two miles of the 21 Lipsky water well, correct? 22 A. Correct. 23 Q. The other XTO well shown here shows to have 24 a surface casing depth of 355 feet, right? 25 A. Correct.</p>	<p>1 violation of Statewide Rule 13, the surface casing 2 portion or some other portion of the well? 3 A. Well, again, just looking at this 4 information that's compiled here on the document, it 5 would be the surface casing. 6 Q. And what do you -- what do you use to base 7 that on? 8 A. Well, the surface casing is set at -- 9 roughly, at 330 to 350 feet. One thing we would need 10 to look at -- and I probably ought to back up a little 11 bit. 12 I don't know where the top of the 13 Strawn is at the location of the XTO wells. When I 14 answered, yes, I think they would be in violation of 15 Statewide Rule 13, my assumption in that answer was 16 that there is a section of the Strawn that is open and 17 not cased or cemented off. 18 If that is the case at these locations, 19 then, yes, in my opinion they would be in violation of 20 Statewide Rule 13. 21 We really need to go back and look at 22 these wells and see if we can figure out a little bit 23 more detail about, you know, where the tops of various 24 formations would be. But I based all that on just the 25 setting depths of the surface casing.</p>

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Q. Did you hear Mr. Richter testify the other day that the Strawn formation goes down to at least about 850 feet?

A. I do generally recall that testimony. I think it was -- that was based upon a Range exhibit that presented at the -- at the hearing. I don't think that was from Mr. Richter's own independent study but, rather, from a Range exhibit.

Q. If Mr. Richter is correct about that, is it true that every horizontal Barnett Shale well within two miles of the Lipsky water well, according to your testimony, would not have surface casing covering the entire depth of the Strawn formation?

A. I don't think we could reach that conclusion because, number one, that wasn't Mr. Richter's opinion. It was based upon a Range exhibit. And it was an estimated top. It wasn't, as I recall the exhibit, meant to represent this is where the Strawn is across the entire area.

So I don't think we can answer that question without doing a little bit more work to see where and how the Strawn formation dips, where it -- where the top and where the base is at any particular location.

Q. If you assume that the Strawn -- that the

A. Well, as I recall, Marble Falls, Caddo, Atoka. Those are the three that come to mind. There may be some others.

Q. Would the surface casing have to be set low enough to seal off all of those formations for the wells not to be in violation of Rule 13 in your opinion?

A. No.

Q. Why?

A. Because we have other formations in between which would form a barrier to, I guess, communication, for lack of a better word, between those formations and the shallower formations.

But we would just need to go through and look on an individual-well basis and make that determination.

I hate to generalize and make a blanket statement. It really needs to be something that you would look at each individual well and make that determination.

Q. So, as I understand your testimony, PGH Engineers has determined that there are formations that naturally seal off any other gas-bearing formation below the Strawn so that it's not necessary to have cement in that portion of the well?

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base of the Strawn is 850 feet below the surface of the earth, would every horizontal Barnett Shale well on Exhibit 12 be in violation of Rule 13 in your opinion?

A. No.

Q. Which ones would not be?

A. The ones that would have surface casing set below and have the Strawn isolated.

Q. And which -- and which ones are those?

A. Well, just -- I guess the easiest thing to do is just go down the column here that's in the middle showing the depth of the surface casing. And, if any of those depths are below 850, then the answer to your question -- or the assumption would be that those would have Strawn -- the Strawn open.

I mean, you want me to go down every single one and tell you or --

Q. Well, that's okay. I've got -- I want to ask you another question about this.

Are there -- are there formations that have been naturally -- that have produced natural gas, other than the Strawn formation, that lie below the Strawn in this area?

A. Yes.

Q. And what are they?

MR. RITTER: Objection --

Q. Is that what you said?

A. No.

Q. What's your testimony about these other areas, these other formations like the Atoka, the Caddo, the Marble Falls that you've told us about, why there doesn't need to be cement in that portion of the well?

A. Well, I think what I said is you would really need to look at it on an individual-well basis.

I haven't made a study of where those formations are, where the tops or the bases, what formations lie in between. So I don't have an opinion what you would need to do or what an operator would need to do until I looked at it.

If there is a method by which vertical migration from those formations would naturally exist, then I don't know that you would need to set surface casing or cement. But, again, that's a general statement. And I don't think we should generalize if we can help it.

I mean, we would need to look at each individual circumstance and just determine what you think the right answer would be. And we haven't made that study.

26 (Pages 101 to 104)

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Q. Did you not just tell us that there are -- there are areas between these formations that naturally seal off any pathway for natural gas between them?

A. Well, I --

MR. RITTER: Objection, form.

A. -- I don't think I said it like that.

Q. Well, what did you say?

A. I thought I said there could be, and that if there was, then you may not have to.

But then I thought I made it very clear that really what we need to do is look at each individual well and make that determination, instead of issuing a blanket statement as to this is what the answer is. Because when you do that, you get in trouble.

And so, we haven't made the study. If you wanted to know the answer to that, then you would have to look at a lot more data and information than I -- than I have or that I have available to me.

Q. Is the same true for Mr. Richter?

A. You'd have to ask him.

Q. You're not aware of any -- of any other study that he's made you privy to that he's done on this, correct?

But I haven't looked at that, so I can't tell you they are or they aren't for certainty as I sit here. But that's something, you know, that you would need to look at.

Q. So as you sit here today, you do not know whether the XTO Energy wells, Praying Mantis and Cutwing Parachute Adams, violate Statewide Rule 13, do you?

A. I --

MR. RITTER: Objection, asked and answered.

A. Again, without more information, I don't know whether they do or they don't.

Q. Thank you.

Have you or anyone else at PGH Engineers come to any conclusion about what pathway or pathways exist for natural gas to be migrating or appearing in the Lipsky water well?

A. I'm sorry. Repeat that for me.

Q. Have you or anyone else at PGH Engineers come to any conclusions about any specific pathways from which natural gas is appearing in or migrating to the Lipsky water well?

MR. RITTER: Objection, form.

A. No. Like I've repeatedly said, our work to

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A. Any other study that he's done?

Q. Well, the study that you're saying you would need to do or you want to do, you're not aware that Mr. Richter has done it, have you?

MR. RITTER: Objection, form.

A. I guess I'm confused.

I don't know of any other studies that he's done, but I didn't think your question related to studies.

Q. Well, let me re-ask my question.

On Deposition Exhibit 12, as you sit here today do you know whether the XTO Energy wells that we've looked at -- the Praying Mantis well and the Cutwing Parachute Adams well -- violate Rule 13?

A. I thought we had been over that. I believe what I told you before was we haven't looked at those wells.

We would need to look and see, where is the Strawn formation in relationship to where XTO set surface casing. If there is Strawn formation that is exposed, and not either cased or cemented, in those wells -- and I don't know if there is or there isn't because I haven't looked at it.

But if there is, then in my opinion they would be in violation of Statewide Rule 13.

date is based upon all of the publicly available information.

To the -- Range presented a geologic picture which suggests that there are these pathways in this area -- whether or not they're specific to the Lipsky location or some other location -- but that geologically there is a connection between the Strawn and the Trinity.

So based upon that -- and I don't have any reason to believe that's not a reasonable interpretation.

So based on that you would conclude that there would be a pathway or a -- an area of communication from Strawn to Trinity in the area of the Lipsky well. But beyond that publicly available data, we don't have any other information.

We haven't seen the underlying documents that went into all that work. So I'm just looking at that on the face of the documents and the testimony at the Railroad Commission hearing.

Q. Have you or anyone else at PGH Engineers done any sort of study of how the drawdown of the aquifer could affect or may affect natural gas in water wells?

MR. RITTER: Objection, form.

27 (Pages 105 to 108)

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<p>1 A. I'm assuming you mean in this area?</p> <p>2 Q. Yes, sir.</p> <p>3 A. No, we haven't. Again, only -- the only</p> <p>4 information we have regarding that is in the Railroad</p> <p>5 Commission hearing and the documents and in the</p> <p>6 depositions.</p> <p>7 Q. Have you -- have you formulated any</p> <p>8 opinions -- you or anyone else at PGH Engineers --</p> <p>9 about whether the drawdown of the aquifer in the area</p> <p>10 of the Lipsky well can affect concentrations of</p> <p>11 natural gas in those water wells?</p> <p>12 MR. RITTER: Objection, form.</p> <p>13 MR. SIMS: What's your objection to</p> <p>14 that?</p> <p>15 MR. RITTER: Assumes facts not in</p> <p>16 evidence.</p> <p>17 MR. SIMS: There's no assumption of</p> <p>18 facts. I've just asked him a question.</p> <p>19 MR. RITTER: You assumed that there's a</p> <p>20 drawdown in the aquifer.</p> <p>21 MR. SIMS: I asked him whether a</p> <p>22 drawdown in the aquifer could affect.</p> <p>23 MR. RITTER: I think you used the term,</p> <p>24 whether the drawdown, but --</p> <p>25 MR. SIMS: Could you read my question</p>	<p>1 natural gas in the water wells in the area of the</p> <p>2 Lipsky water well?</p> <p>3 A. We have not done a study on that subject.</p> <p>4 Q. Do you recall reading anything in the</p> <p>5 Railroad Commission hearing transcript to the effect</p> <p>6 that drawing down the aquifer in the -- in the</p> <p>7 specific location of these water wells in fact causes</p> <p>8 a pressure differential to release gas out of the</p> <p>9 water into a free-gas state?</p> <p>10 A. I remember general testimony about those</p> <p>11 sorts of things. Your question implied pretty</p> <p>12 specific numbers, pressure drawdowns and things like</p> <p>13 that. I don't remember that.</p> <p>14 There was discussion on water usage, as</p> <p>15 I recall, and in a hypothesis or an opinion expressed</p> <p>16 about drawing the aquifer down and how that could in</p> <p>17 effect pull gas into the aquifer.</p> <p>18 But I don't remember any specific</p> <p>19 evidence or testimony about, you know, specific water</p> <p>20 levels or pressure drawdowns.</p> <p>21 Q. Do you have any reason to believe, as you</p> <p>22 sit here today, that a drawdown of the Trinity aquifer</p> <p>23 in the area of the Lipsky well would not cause</p> <p>24 increased amounts of natural gas in these water wells</p> <p>25 in the area?</p>
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<p>1 back, Gaylord?</p> <p>2 (The Reporter read back the requested</p> <p>3 material.)</p> <p>4 BY MR. SIMS:</p> <p>5 Q. Okay. Well, let me -- let me ask it this</p> <p>6 way:</p> <p>7 Did you read testimony in the Railroad</p> <p>8 Commission hearing about the fact that, in the</p> <p>9 summertime especially, that this particular water</p> <p>10 aquifer gets drawn down significantly?</p> <p>11 MR. RITTER: Objection to form.</p> <p>12 A. I read testimony about the drawdown, the</p> <p>13 water usage. I don't recall that it talked about a</p> <p>14 significant drawdown in the summer.</p> <p>15 I remember generally a discussion on</p> <p>16 the drawdown, but I don't -- I don't recall that it</p> <p>17 got to be that specific as to how much and over what</p> <p>18 period of time.</p> <p>19 Q. Have you done any investigation or looked</p> <p>20 into drought conditions in this area of Texas in the</p> <p>21 summer of 2010?</p> <p>22 A. No.</p> <p>23 Q. Do -- have you or anyone else at PGH</p> <p>24 Engineers done any sort of study of whether a drawdown</p> <p>25 in this water aquifer may affect concentrations of</p>	<p>1 A. That it would not cause?</p> <p>2 Q. Do you have any reason to believe that it</p> <p>3 wouldn't cause that, as you sit here today?</p> <p>4 A. I don't have any reason to believe one way</p> <p>5 or the other. I haven't seen any direct information</p> <p>6 on that.</p> <p>7 I believe that the testimony that was</p> <p>8 presented, that I recall anyway, was more or less kind</p> <p>9 of a general opinion about kind of general theories.</p> <p>10 I don't recall any specific information</p> <p>11 being presented.</p> <p>12 MR. SIMS: Why don't we take about a</p> <p>13 ten-minute restroom break if we can right now and be</p> <p>14 back in about ten minutes. Thanks.</p> <p>15 THE VIDEOGRAPHER: We are off the</p> <p>16 record at 2:20 PM.</p> <p>17 (Whereupon a short recess was taken.)</p> <p>18 THE VIDEOGRAPHER: We are on the record</p> <p>19 at 2:42 PM.</p> <p>20 BY MR. SIMS:</p> <p>21 Q. Mr. Gore, if you would, please take the</p> <p>22 notebook that's in front of you and turn to Exhibit 3</p> <p>23 in the notebook.</p> <p>24 A. Are these in any sort of order?</p> <p>25 Q. I think Exhibit 3 should be in that</p>

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1 notebook.
2 **A. I don't guess it's going to correspond to**
3 **the tab.**
4 Q. Excuse me. I'm incorrect. I think -- I
5 think that may not be in that notebook --
6 **A. Okay.**
7 Q. -- so let me switch with you.
8 **A. Okay.**
9 Q. Do you have Exhibit 3 in front of you?
10 **A. I do.**
11 Q. What is Exhibit 3?
12 **A. It looks like it's the amended affidavit of**
13 **Thomas H. Richter.**
14 Q. And did you review this affidavit before
15 Mr. Richter signed it?
16 **A. I saw it, yes.**
17 Q. Did you discuss it with Mr. Richter before
18 he signed it?
19 **A. We had a general discussion, yes.**
20 Q. And what did you-all discuss about it?
21 **A. Well, primarily that -- the reason that it**
22 **needed to be amended and, as I understand, when we**
23 **first pulled -- or requested the Commission docket in**
24 **this matter, that what we were provided did not**
25 **contain the, I think, four depositions that we've**

1 it says, Summary of Opinions?
2 **A. Yes.**
3 Q. Paragraph 5 under Roman Numeral II, is that
4 the summary opinion that attempts to explain the
5 relationship between the Butler and Teal wells and
6 natural gas in the Lipsky water well?
7 **A. Is it the summary statement that attempts to**
8 **do that?**
9 Q. Yes.
10 **A. I believe so. At least that's my**
11 **understanding.**
12 Q. Did you review Paragraph 5 of Exhibit 3
13 before Mr. Richter signed it?
14 **A. I read it. I don't know that -- when you**
15 **say review, that to me connotes whether or not I**
16 **necessarily agreed with how we worded it and his**
17 **conclusions.**
18 **Obviously, I did read it. We've talked**
19 **about everything that we know that's in the record. I**
20 **wouldn't use the word "review," but I did read it.**
21 Q. Well, let me just ask you: Do you -- as you
22 sit here today, do you agree with how Paragraph 5 of
23 Exhibit 3 is worded by Mr. Richter?
24 **A. I -- well, again, I didn't review it and**
25 **critique him on his use of words.**

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1 referred to.
2 **And subsequent to that, we realized**
3 **that those depositions were actually made a part of**
4 **the record. So we went back over -- or Mr. Richter**
5 **had one of our engineering assistants go back over and**
6 **double check. And she then found those deposition**
7 **transcripts, which necessitated the amendment.**
8 Q. And you heard last week Mr. Richter testify
9 that there were also other documents that were
10 tendered to the Railroad Commission that he had
11 inaccurately said had not been provided to them, such
12 as the seismic data map that we talked about last
13 week; do you recall that?
14 **A. I don't recall a discussion on that**
15 **regarding what we had not received correctly from the**
16 **Commission. But, you know, I don't recall one way or**
17 **the other his testimony on that.**
18 Q. Suffice it to say that you're aware that his
19 original affidavit contained inaccurate statements,
20 and that's what necessitated the amended affidavit?
21 **A. Yes.**
22 Q. If you would, please look at Page 2 of
23 Exhibit 3.
24 **A. Okay.**
25 Q. And do you see Roman Numeral II there where

1 **The gist of Paragraph 5 I agree with.**
2 **If I'd written that, would I have**
3 **chosen different words? Perhaps. But I think the**
4 **bottom line is the conclusion would be the same.**
5 **So I didn't review it in an attempt to,**
6 **you know, tell him how to word something. These are**
7 **his own words. But the overall meaning I would agree**
8 **with.**
9 Q. What words would you have changed had you
10 been signing this affidavit?
11 **A. I don't know that I would have changed**
12 **anything. I didn't look at it from that context. I**
13 **didn't choose his words.**
14 **He wrote it. He wrote it based upon**
15 **his review of the information that was available and**
16 **his conclusions, which also agreed with what I had**
17 **reviewed and my conclusions.**
18 **So I don't know what I would change, if**
19 **anything.**
20 Q. What does reservoir engineering have to do
21 with this particular study?
22 **A. Well, the way I describe reservoir**
23 **engineering, in a general sense, is the study of**
24 **fluids, oil -- typically oil, gas, and water as they**
25 **exist in the reservoir and how those flow through the**

29 (Pages 113 to 116)

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<p>1 various formations.</p> <p>2 So, since the object of the -- of the</p> <p>3 hearing was over natural gas being in the Lipsky well.</p> <p>4 And whether or not the Range wells had any part in</p> <p>5 that, deals with the flow of fluids -- oil, gas, and</p> <p>6 water -- in the various formations underlying those</p> <p>7 well locations.</p> <p>8 So that's what I think it has to do</p> <p>9 with reservoir engineering.</p> <p>10 Q. Other than reviewing the Railroad Commission</p> <p>11 record, did you or anyone else at PGH Engineers do any</p> <p>12 other study of the flow of fluids, of oil, gas, or</p> <p>13 water, in the respective formations in and around the</p> <p>14 Lipsky water well?</p> <p>15 A. Like I think I've told you, the entire</p> <p>16 universe of data that we have, that we've looked at,</p> <p>17 is public information.</p> <p>18 So, the well files at the Commission,</p> <p>19 the hearing data, the various exhibits that were</p> <p>20 presented, those -- to the extent those address that</p> <p>21 issue, then we looked at it.</p> <p>22 We don't have any backup documentation</p> <p>23 for any of the work that Range did. So, again, our</p> <p>24 conclusions to date are based purely on publicly</p> <p>25 available information.</p>	<p>1 completed a horizontal Barnett Shale well?</p> <p>2 A. Not to my knowledge.</p> <p>3 Q. To your knowledge has he ever engineered a</p> <p>4 horizontal Barnett Shale well?</p> <p>5 A. Not to my knowledge.</p> <p>6 Q. In this Paragraph 5 of Exhibit 3, it says:</p> <p>7 Range's failure to cement and/or</p> <p>8 complete the Butler and Teal wells through all of the</p> <p>9 formation intervals that included past and/or present</p> <p>10 gas-containing formations was a cause or contributor</p> <p>11 to the contamination of the Lipskys' wells.</p> <p>12 Did I read that correctly?</p> <p>13 A. You did.</p> <p>14 Q. Is it your opinion that -- in horizontal</p> <p>15 Barnett Shale wells, that all of the formation</p> <p>16 intervals that might be capable of producing gas or</p> <p>17 that may have produced gas at some point in time have</p> <p>18 to be cemented?</p> <p>19 A. No.</p> <p>20 Q. What does it mean, "Range's failure to</p> <p>21 cement and/or complete"? How do those two things</p> <p>22 differ from each other: "...failure to cement and/or</p> <p>23 complete the Butler and Teal wells through all the</p> <p>24 formation intervals"?</p> <p>25 A. Again, these are Mr. Richter's words. So I</p>
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<p>1 And we would expect to be getting into</p> <p>2 other things as we progress and as discovery in the</p> <p>3 matter proceeds, assuming there is discovery. And we</p> <p>4 may see some other information, but that's all we have</p> <p>5 at our disposal to date.</p> <p>6 Q. So let me ask my question one more time.</p> <p>7 Other than reviewing what was in the</p> <p>8 Railroad Commission records regarding the flow of oil,</p> <p>9 gas, or water in the respective formations, neither</p> <p>10 you nor anyone else at PGH did any other independent</p> <p>11 study of that, is that correct?</p> <p>12 A. That's correct. There's no other data to do</p> <p>13 that study with.</p> <p>14 Q. Have you ever completed, as an engineer, a</p> <p>15 horizontal Barnett Shale well?</p> <p>16 A. No.</p> <p>17 Q. Have you ever engineered a horizontal</p> <p>18 Barnett Shale well?</p> <p>19 A. Describe what you mean by engineered.</p> <p>20 Q. Have you been an engineer in charge of</p> <p>21 designing and making sure that a horizontal Barnett</p> <p>22 Shale well was constructed and prepared in an</p> <p>23 appropriate manner?</p> <p>24 A. No.</p> <p>25 Q. To your knowledge has Mr. Richter ever</p>	<p>1 guess if you want to know what he meant when he wrote</p> <p>2 these, you should probably ask him.</p> <p>3 I can give you my impression as I read</p> <p>4 it.</p> <p>5 Q. Okay. What's your impression?</p> <p>6 A. The failure to cement and/or complete would</p> <p>7 refer to the mechanical configuration of the well,</p> <p>8 where the various strings of casing were set and</p> <p>9 cement placed behind those various strings of casing.</p> <p>10 That would be the cement and/or</p> <p>11 completion of those wells.</p> <p>12 Q. Is there any difference between the use of</p> <p>13 the words "cement" and "complete"? I mean, is that</p> <p>14 what he's talking about? The failure to cement</p> <p>15 through all these intervals that included past and/or</p> <p>16 present gas-containing formations?</p> <p>17 A. Well, I -- I would think that the cementing</p> <p>18 part and the complete part would kind of go hand in</p> <p>19 hand, that it's all kind of one process by which you</p> <p>20 drill and complete the well. So...</p> <p>21 Q. What was the failure to cement through all</p> <p>22 of the formation intervals that included past and/or</p> <p>23 present gas-containing formations?</p> <p>24 A. What was the failure?</p> <p>25 Q. Yes. Is that the failure that he identifies</p>

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1 here?

2 A. Well, I think the failure that he's
3 identifying is the failure of Range to set sufficient
4 surface casing to completely isolate the Strawn
5 formation from the lower, gas-bearing formations in
6 the Teal and the Butler wells.

7 I believe that's what the failure he's
8 referring to is.

9 Q. If you had been wording this Paragraph 5,
10 that's how you would have worded it?

11 A. I don't know how I would have worded it
12 until I'd sit down and just wrote it out and see how
13 it made sense for me to say it.

14 Q. Did you ask him what he meant when
15 Mr. Richter said that -- when he talked about failure
16 to cement and/or complete the Butler and Teal wells
17 through all of the formation intervals that included
18 past and/or present gas-containing formations?

19 A. Did I ask him what he specifically meant by
20 those words?

21 Q. Yes, sir.

22 A. No.

23 Q. As you sit here today, do you know what he
24 meant by those words?

25 A. I think I do. Or at least based on our

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1 discussions, I believe I do.

2 Q. And what do you think he means by the words,
3 "all of the formation intervals that included past
4 and/or present gas-containing formations"?

5 A. The -- I believe the issue, in our opinion,
6 is the fact that the Strawn formation is open in the
7 Butler and the Teal wells.

8 Based upon the geologic study presented
9 by Range, the Strawn formation is in communication
10 with the aquifer. That's where the -- and the Strawn
11 formation is a known gas-productive formation in the
12 area. So that's where the violation of Statewide Rule
13 13 comes into play.

14 But in addition to that, since the
15 Strawn formation is open, it is also open to the
16 deeper Caddo, Marble Falls, Atoka zones that also are
17 known gas-bearing formations. Those formations are
18 deeper. They're at higher pressure. So there is
19 nothing to prevent those formations from communicating
20 with the Strawn, and in return, the Strawn
21 communicating with the aquifer.

22 Had the Strawn been cemented -- the
23 entire Strawn interval been cemented -- cased and
24 cemented across that interval, then we wouldn't have
25 the issue of those deeper formations being in

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1 communication with the Strawn because those would be
2 behind pipe.

3 So that's what I think he meant.

4 Q. Explain to me how -- well let me back up.

5 Is it -- explain how it is that PGH
6 Engineers thinks that the Butler or Teal wells has
7 caused or is contributing to the contamination of the
8 Lipskys' wells. I mean, if you'll just walk me
9 through, how is that happening from the Butler and
10 Teal wells?

11 A. The -- well, I just described part -- you
12 know, the process.

13 The Strawn formation is a known
14 productive formation in the area. It has produced.
15 In fact there was quite a bit of testimony by the
16 Range witnesses at the hearing about the productivity
17 of the Strawn formation in the area.

18 The Statewide Rule 13 requires you to
19 isolate those formations from -- you know, and prevent
20 any migration from those formations into the
21 freshwater zones.

22 So, when Range drilled their wells,
23 they did not set surface casing across the Strawn and
24 isolate it, so there is a portion -- it -- probably
25 most of, at least based upon the cross-sections that

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1 I've seen, of the Strawn that is open behind pipe with
2 no cement.

3 In addition to that, there are deeper
4 formations at higher pressure that are also in
5 communication with the Strawn. So the potential
6 migration of hydrocarbons in those zones has not been
7 prevented by the drilling and completion of those
8 wells.

9 The Teal and the Butler well has
10 provided a conduit, in my opinion, if you will, for
11 those deeper formations to -- and the fluids in those
12 formations to migrate into the Strawn, and there --
13 and from the Strawn into the aquifer.

14 Now, that's how it would impact the
15 Lipsky well.

16 Now, when we look at what we know, or
17 at least what the public record shows about the water
18 wells, what we know is that all of the wells to my
19 knowledge, with the exception of the Lipsky well,
20 encountered gas when they were first drilled. The
21 Lipsky well did not.

22 The other things that I think we know
23 about these other water wells is: Even though they
24 encountered gas, that presence of gas either went away
25 or was reduced to a -- basically a negligible amount.

31 (Pages 121 to 124)

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1 It isn't interfering with the operation of those
2 wells. There does not appear to be a problem.

3 For example, on the Hurst well, you
4 know, you can know longer light it, apparently; and
5 it's being used without any problem. That's not the
6 case on the Lipsky well.

7 What we know about the Lipsky well is
8 it was present -- it was drilled and had no gas issues
9 until roughly four years later. And those issues
10 still persist through today.

11 So we have all these water wells, but
12 there's only one to my knowledge that has been a
13 perpetual problem as far as gas in the well. And
14 that's the Lipsky well.

15 So there is a difference when you
16 compare the performance of the water wells and what's
17 been reported.

18 So when you take those factors and you
19 look at the Range well, where the Strawn is not
20 isolated, to me, Range's own presentation before the
21 Commission outlines in very great detail how this very
22 thing could occur.

23 They didn't isolate the Strawn. The
24 Strawn is open in those wells. The Strawn has
25 communicated with the aquifer.

1 deeper gas-bearing zones up into the fresh water.

2 So, when you look at all of that
3 evidence as a whole and how Range completed their
4 wells, at least based upon that data set, I don't
5 think you can reach any other conclusion, logically,
6 that the Teal and the Butler wells are a cause or a
7 contributing factor to the ongoing natural gas
8 problems in the Lipsky water well.

9 Q. Well, that was a lot of information, and I
10 want to try to unpack that a little bit.

11 You talked about the Butler or Teal
12 wells being a conduit, and I want to -- I want to
13 focus on that piece of your testimony.

14 Explain how the Butler or Teal well
15 is -- and not just in general, but I want you to tell
16 me specifically how either one of those wells is
17 actually transmitting gas into the Strawn or into the
18 water aquifer directly.

19 A. Well, you've asked a very specific question.
20 And the data we have is publicly available data. I
21 think to specifically answer that question, we'd need
22 to get into the files of Range, and we haven't been
23 able to do that.

24 But what we do know is the way those
25 two wells were completed, the Strawn formation is open

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1 We have the Lipsky well that is -- has
2 these problems that persist that no other water well
3 appears to have had.

4 And so when you put all those things
5 together, and the timing, it appears to me, based upon
6 the public data, that it would be an issue with
7 Range's noncompliance with Statewide Rule 13 in the
8 way they completed the well and set surface casing.

9 Let me add that, when you look at other
10 horizontal wells in the area, that what we see is
11 most, if not all, of the operators have set deeper
12 surface casing. Not just, in effect, the minimum.

13 Well, the question that raises in my
14 mind is, why did they do that?

15 One logical answer, from the data I've
16 reviewed, is that there are known gas-bearing
17 formations, namely the Strawn, in the area that these
18 operators were wanting to isolate.

19 The other thing you can look at is the
20 wells that have been plugged in the area, and where
21 did the Railroad Commission require them to set their
22 plugs.

23 And they all have cement plugs around a
24 thousand feet, again indicating that the Commission is
25 requiring a plug set to prevent the migration from

1 to the, you know, roughly 4,000 feet below there,
2 which would include the Atoka, the Caddo, the Marble
3 Falls. And so all of those are open, behind pipe,
4 uncemented. Those deeper formations below the Strawn
5 are going to be at a higher pressure.

6 We know -- and Range presented in
7 their hear -- in the hearing that the Strawn is in
8 natural communication with the aquifer. So we have
9 these deeper, potentially productive zones being in
10 communication with the Strawn, which is in
11 communication with the aquifer. That is the conduit.

12 Q. Well, do I understand you correctly that
13 the -- these deeper formations like the Marble Falls
14 and the Atoka and the Caddo are in -- are in
15 connection with the Strawn naturally, or only by
16 virtue of the Butler and/or Teal wells?

17 A. Only by virtue of the Butler and the Teal
18 well.

19 Q. Okay. Now, tell me, how is it -- I'm trying
20 to understand. So, if you will, is it your testimony
21 that gas is coming out of the Marble Falls or the
22 Caddo or the Atoka and coming up the annulus of the
23 well, and then going back into the Strawn? Is that
24 what your testimony is?

25 A. Well, we don't know what is physically

32 (Pages 125 to 128)

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1 occurring. What we do know is how is the well
2 configured.
3 And it is configured such that it will
4 allow that to happen because those formations are open
5 to the Strawn. Their -- the casing has not been
6 cemented, the Strawn has not been isolated from those
7 zones; so everything is open to communication.
8 We can't go down there and look to see
9 what is actually happening. All we can do is look at
10 how the wells are -- were drilled and completed, and
11 what the geology what -- that Range presented
12 indicates. And that -- those are the facts as we know
13 them today.
14 Now, again, there might be some
15 information in Range's files that we don't have that
16 might help explain that. But, I mean, we don't have
17 that data today.
18 All we can go on is the public data on
19 how those wells were actually drilled and completed.
20 Q. Do you concur with Mr. Richter that the
21 annulus of the Butler well and the Teal well is more
22 likely than not filled with drilling mud and other
23 fluids up -- all the way up close to the surface of
24 the earth?
25 A. I don't recall --

1 A. Yes.
2 Q. Do you know that?
3 A. As a general matter, yes, I do know that.
4 Q. Okay.
5 A. That's typically the way wells are cased.
6 Q. Is it your testimony that any natural gas is
7 entering into the water aquifer through the cemented
8 shoe?
9 A. No.
10 Q. So is it your testimony then that to the
11 extent any natural gas is entering the water aquifer
12 at the Butler and/or Teal wells, that it's entering in
13 the uncemented portion of the Strawn formation?
14 A. Well, let me back up for one second.
15 I said no. My assumption is the cement
16 on the surface casing is good, competent cement. I
17 don't believe we have any bond logs on the surface
18 casing to indicate whether it is or it isn't.
19 So, if we assume that the cement is
20 good and competent, then it would be entering the
21 Strawn below where it was cemented.
22 But I don't know that we can conclude
23 that until we look at more details on how the surface
24 casing was cemented and get -- get information on
25 those sorts of things.

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1 MR. RITTER: Objection, form. Sorry.
2 A. I don't recall his testimony on that
3 specifically. I think there would be some sort of
4 fluid in the hole, presumably. But, again, we don't
5 have the information. That would probably be in
6 Range's files.
7 But what we do know is there is no
8 cement.
9 Q. Based on what you've seen in the publicly
10 available information, the surface casing on the
11 Butler and Teal wells does extend down into, and the
12 cement does extend down into at least a portion of the
13 Strawn, correct?
14 A. In looking at the cross-section exhibit that
15 presented and kind of going across to the -- to the
16 scale, if it's into the Strawn, it's just barely into
17 it. I think most of the Strawn would be open.
18 That's my recollection.
19 Q. Is it your testimony that natural gas is
20 getting into the water aquifer through the shoe at the
21 base of the cement of the surface casing?
22 A. I don't know what you mean by that.
23 Q. Do you know how wells are cemented at the
24 surface casing, and is there a -- is there a shoe
25 that's cemented at the base of the surface casing?

1 Q. Okay. Now, in terms of, if we assume that
2 the cement on the surface casing is good cement, then
3 in accordance with your theory, the natural gas in the
4 annulus of the Butler and/or Teal well then is
5 entering the Strawn in the uncemented portion of the
6 Strawn, through the annulus of the well, is that
7 correct?
8 A. Yes.
9 Q. And if I -- if I understand this correctly,
10 the annulus of the well is on the exterior of the
11 production casing, correct?
12 A. Well, you know, we need to be clear.
13 There are multiple annuluses. I think
14 the one you're referring to is on the outside of the
15 production casing.
16 You're also going to have a surface
17 casing, production casing annulus. You're going to
18 have an annulus outside the surface casing. You're
19 going to have a tubing casing annulus.
20 So I think what you're referring to is
21 that annulus outside of the production casing, below
22 the surface casing, that's uncemented across from
23 roughly 400 feet to about 4800 feet.
24 Q. And that's what you're referring to, right?
25 A. Yes.

33 (Pages 129 to 132)

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<p>1 Q. And I think it's your opinion that you would 2 expect that that annulus would be largely filled with 3 some sort of fluid, whether it be drilling mud or 4 water or other fluids that would be in that -- in that 5 space? 6 A. I would typically think so, yes. But, 7 again, you know, that would be in the records and 8 files of Range, presumably; and we could figure that 9 out. 10 Q. Have you made any determination or do you 11 have any conclusion of whether any natural gas that is 12 in the annulus, whether it's coming from the Marble 13 Falls, the Atoka, or the Caddo or some other 14 formation? 15 A. I'm sorry. Have I made a -- 16 Q. Have you made a determination as to any 17 natural gas in the annulus that we're talking about; 18 is it coming from the Marble Falls, the Caddo, the 19 Atoka, or do you know? 20 A. We don't have the information to make that 21 determination, so I don't have an opinion on that. 22 Q. Okay. 23 A. Again, all of that I think would probably be 24 in the files of Range. 25 Q. And so -- and it's -- and if I understand</p>	<p>1 dissolved in any other fluid, like water? 2 A. No. 3 Q. Have you made any determination as to 4 whether any natural gas in the annulus of the Butler 5 or Teal wells is freestanding gas, as opposed to being 6 dissolved? 7 A. No. I mean, all of these questions -- to my 8 knowledge, if the data exists to determine that, it 9 hasn't been provided. So there's no way to make those 10 determinations at this point. 11 Q. But as I understand your theory, somehow gas 12 is exiting either the Marble Falls or the Atoka or the 13 Caddo formation and going into the annulus of the 14 Butler or Teal wells, and then is somehow moving up 15 the annulus in this stream of liquid that's in there, 16 whether it be drilling mud or other fluids. And then 17 it's somehow, for lack of a better word, when it gets 18 to the Strawn, is then making a right-hand turn and 19 going back into the Strawn out of this annulus. 20 Is that -- is that a fair 21 characterization of what you're saying? 22 MR. RITTER: Objection, form. 23 A. I guess that that might be a layman's 24 characterization. I don't think of it as making a 25 right-hand turn.</p>
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<p>1 your testimony correctly so far, wherever this gas is 2 coming out, whether it be in the Marble Falls or the 3 Atoka or the Caddo, it's coming into this fluid that's 4 in the annulus. And is it coming in as free gas or 5 dissolved gas? 6 A. There's no way we could determine that. 7 Q. If it's coming in -- 8 A. Dissolved gas in what? 9 Q. In some fluid. Water. 10 A. I don't think it would be in water. Again, 11 I don't think you can dissolve much gas in water. 12 But it -- I suppose it could be 13 dissolved in oil. You know, if some of those lower 14 formations are oil productive, then you can have 15 associated gas -- or dissolved gas in that oil. 16 So, as you would produce it and it came 17 to the surface and that pressure dropped, you would 18 have that gas come out of solution. 19 Q. Have you made any determination as to 20 whether any natural gas in the annulus of the Butler 21 or Teal wells is dissolved in any other sort of 22 hydrocarbon, like oil? 23 A. No. 24 Q. Have you made any determination as to 25 whether any natural gas in the annulus of the well is</p>	<p>1 That fluid -- oil, gas, and water -- is 2 going to go to the path of least resistance. 3 And, you know, we know at least in one 4 of the wells there was pressure on the bradenhead. So 5 that gives us an indication that there is movement in 6 that annulus, but that that is going -- that fluid is 7 going to go to the path of least resistance. 8 And the Strawn is open, and it is 9 uncemented. And the deeper formations are going to be 10 at higher pressure. So I think the logical conclusion 11 would be that it would enter the Strawn formation at 12 the Teal and Butler well bores. 13 Q. For -- or let me ask it this way: 14 Is it true that any natural gas in the 15 annulus of the Butler or Teal wells, for that gas to 16 leave the annulus and enter into the Strawn, the 17 pressure in the Strawn would have to be lower than the 18 pressure in the annulus? 19 A. There has to be a pressure differential 20 there. 21 Q. Would it have to be lower in the Strawn than 22 in the annulus? 23 A. Yes. And that's -- when I talked about the 24 path of least resistance, that's what that means is, 25 there is a pressure differential. Gas is going to</p>

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<p>1 flow -- or fluids are going to flow from high-pressure 2 areas to lower-pressure areas. 3 That's why it's important, especially 4 if the Strawn is in communication with the aquifer, to 5 seal off the Strawn with surface casing and cement. 6 That's the intent of Rule 13. 7 Q. Have you done any sort of study to determine 8 whether the pressure within the Strawn, where you 9 claim gas is exiting the annulus of the Butler or Teal 10 wells and getting into the Strawn, is greater than or 11 less than the pressure in the annulus? 12 A. I'm sorry. Could you repeat that? 13 Q. Have you done any sort of study to determine 14 whether -- at whatever point within the Strawn you 15 believe gas is exiting the annulus of the Butler or 16 Teal wells and going back into the Strawn, have you 17 done any study to determine whether the pressure at 18 that point is lower in the Strawn than it is in the 19 annulus? 20 A. There is no information available to make 21 that study, so I haven't done that. 22 Again, that may very well be 23 information that could be gleaned from Range's files. 24 We won't know that until we have access to that. But 25 as I sit here right now, none of that type of data is</p>	<p>1 the Lipsky water well. And I was told that, number 2 one, it's not connected. So it's really not being 3 used at the house. 4 I've been told that, basically, because 5 of the fact that the well is making so much gas, that 6 the pump gas locks and won't pump very much water at 7 all. 8 And, you know, that problem has 9 persisted since, you know, 2010, maybe whenever the -- 10 whatever the date was of the first reported issue, 11 maybe in '09. 12 Q. Did you read -- 13 A. But that's based on conversations with 14 attorneys. 15 Q. Okay. You haven't done any independent 16 study of the well, and you haven't gone out and hooked 17 it back up to see what kind of water it produces or 18 anything like that? 19 A. No, sir, I haven't. 20 Q. Did you read anything in the Railroad 21 Commission records about a different explanation as to 22 why Mr. Lipsky's water well is gas locking and not 23 producing water? 24 A. I don't recall reading that. And I read the 25 entire transcript. But maybe you can refresh my</p>
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<p>1 available. 2 Q. Until you have that sort of data, you can't 3 know whether gas is actually leaving the annulus and 4 getting into the Strawn from the Butler or Teal wells, 5 can you? 6 MR. RITTER: Objection, form. 7 A. No, I think we can know that. 8 Q. And how can you know that? 9 A. Well, for all the reasons, you know, I've 10 gone over for about the last 30 minutes. 11 When you look at the Lipsky well and 12 compare it to the other water wells, there is a 13 difference. I've heard the Lipsky well described not 14 as a water well but as a gas well. 15 It basically doesn't produce water 16 anymore because of the surging and the gas locking of 17 the pump, it produces so much gas. 18 So when you look at all of those facts 19 and you look at the completion of the Teal and the 20 Butler wells, I think you can conclude that that is 21 what is going on. 22 Q. Who told you that the Lipsky water well 23 doesn't produce water anymore? 24 A. Well, I've -- I've asked the question to 25 Mr. Stewart and Mr. Ritter about what is the status of</p>	<p>1 memory. 2 Q. You don't recall reading anything about the 3 submersible water well pumps cavitating when the water 4 is drawn down below or at the same level as the pump? 5 A. Well, I remember that discussion. I don't 6 remember that in the context of, that's why the Lipsky 7 well won't make water. 8 Or, I mean, I remember the description 9 of what happens when the pump gas locks. And I think 10 that discussion that I recall was in relationship to 11 that, not necessarily, you know, the aquifer level and 12 as it's drawn down. But that's just my recollection. 13 Q. Do you recall any testimony about why the 14 gas -- or why the water appears to effervesce based 15 upon the water aquifer being drawn down to the 16 submersible pump or below the submergible pump? 17 A. I recall those words or something similar. 18 I don't recall the context that that was being 19 discussed. 20 Q. Do you have any -- do you have any 21 independent knowledge about any of that one way or the 22 other? 23 A. Not other than what was either in the 24 deposition transcripts or the Railroad Commission 25 testimony.</p>

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<p>1 Q. Do you have any knowledge or information</p> <p>2 about another water well that Lipsky drilled this past</p> <p>3 summer?</p> <p>4 A. No.</p> <p>5 Q. Have you asked anything about that?</p> <p>6 A. I didn't know he drilled one.</p> <p>7 Q. Did you hear that last week when you sat</p> <p>8 here and listened to the testimony of Mr. Richter?</p> <p>9 A. I seem to recall you asking the question</p> <p>10 about another well he might have drilled, but I don't</p> <p>11 know if he drilled another one or not.</p> <p>12 Q. Did it have any natural gas in it when it</p> <p>13 was drilled, or do you know?</p> <p>14 A. What?</p> <p>15 Q. Mr. Lipsky's water well that got drilled</p> <p>16 this past summer.</p> <p>17 A. I didn't know he drilled one, so --</p> <p>18 Q. Do you know why these lawyers wouldn't have</p> <p>19 told you about that?</p> <p>20 A. No.</p> <p>21 Q. Were there any water wells in the study that</p> <p>22 Range did and presented to the Railroad Commission</p> <p>23 that actually had a higher natural gas content than</p> <p>24 the Lipsky water well?</p> <p>25 A. I believe there's -- there was one.</p>	<p>1 Q. Sure.</p> <p>2 A. Well, I mean, I believe what the evidence</p> <p>3 that was presented indicated is that there was natural</p> <p>4 communication.</p> <p>5 So, could a water well drilled into the</p> <p>6 Strawn provide another means of communication?</p> <p>7 Perhaps.</p> <p>8 But I believe the geological evidence</p> <p>9 that was presented indicated that there was a natural</p> <p>10 communication, if you will, due to the -- again, the</p> <p>11 dipping of the beds and the unconformity, such that</p> <p>12 the Strawn is in communication with the Trinity.</p> <p>13 Q. And as you sit here today, that's your</p> <p>14 opinion, too; you hold the opinion that there is a</p> <p>15 natural connection between the Strawn and the water</p> <p>16 aquifer in and around the area of the Lipsky house?</p> <p>17 MR. RITTER: Objection, form.</p> <p>18 A. Well, it seems like a logical</p> <p>19 interpretation. The geology that was presented on its</p> <p>20 face appeared to be reasonable.</p> <p>21 Like I told you before, I haven't seen</p> <p>22 any of the underlying documents that were looked at to</p> <p>23 come up with that conclusion. But -- so, sitting here</p> <p>24 almost as if I were the Hearing Examiner, I'm looking</p> <p>25 at the face of the document and it appears reasonable</p>
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<p>1 Q. Do you remember what the name of it was or</p> <p>2 where it was located?</p> <p>3 A. I don't remember the name, but I believe it</p> <p>4 was located basically on the drill site of the Teal</p> <p>5 and Butler or very, very close.</p> <p>6 Excuse me. (Coughs.)</p> <p>7 Q. Do you remember any testimony about the fact</p> <p>8 that that water well was actually drilled down into</p> <p>9 the Strawn a little bit?</p> <p>10 A. No.</p> <p>11 Q. You don't remember that testimony?</p> <p>12 A. I don't.</p> <p>13 Q. Have you done any investigation of other</p> <p>14 water wells in the area to determine whether they in</p> <p>15 fact were actually drilled into the Strawn?</p> <p>16 A. Again, my investigation is based upon what</p> <p>17 was on file at the Railroad Commission. I think there</p> <p>18 was actually some data presented on that at the</p> <p>19 hearing, but that would be the extent of my knowledge.</p> <p>20 Q. Is it possible for a water well drilled into</p> <p>21 the Strawn to create a source of communication for</p> <p>22 natural gas to get into the water aquifer?</p> <p>23 A. A source of what gas?</p> <p>24 Q. In the Strawn.</p> <p>25 A. Strawn gas?</p>	<p>1 to me.</p> <p>2 MR. SIMS: All right. We need to stop</p> <p>3 and let our videographer change the tape, so let's</p> <p>4 take about five minutes and we'll come back.</p> <p>5 THE WITNESS: Okay.</p> <p>6 THE VIDEOGRAPHER: We are off the</p> <p>7 record at 3:35 PM.)</p> <p>8 (Whereupon a short recess was taken.)</p> <p>9 THE VIDEOGRAPHER: We're back on the</p> <p>10 record at 3:54 PM.</p> <p>11 BY MR. SIMS:</p> <p>12 Q. Mr. Gore, with respect to any gas that you</p> <p>13 have and PGH Engineers has opined may be entering the</p> <p>14 Strawn through the annulus of the Butler or Teal</p> <p>15 wells, how long would it take that gas to migrate from</p> <p>16 the Butler or Teal wells to the Lipsky water well?</p> <p>17 A. Well, number one, I don't know. There's no</p> <p>18 way of determining that.</p> <p>19 But your question implies that gas is</p> <p>20 entering from the deeper formations into the annulus</p> <p>21 and then into -- into the Strawn.</p> <p>22 The other thing is, because of the</p> <p>23 higher pressure from those zones, that higher pressure</p> <p>24 could actually be moving Strawn gas to the Lipsky</p> <p>25 well.</p>

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1 So it wouldn't necessarily have to be
2 gas that migrated from one of these other zones, even
3 though it's that gas migration and that pressure
4 differential that causes fluids to move.

5 But that higher pressure, with the
6 Strawn being open, could actually be pushing, and
7 would actually have to push, Strawn gas toward the
8 Lipsky well.

9 Q. Okay. And let's talk about that.

10 The Butler and Teal wells are about a
11 half a mile away from the Lipsky water well, as the
12 crow flies, correct?

13 A. I think that's correct.

14 Q. How much pressure would have to be exerted
15 at the annulus of the Butler and Teal wells to have
16 any sort of cause and effect half a mile away at the
17 Lipsky water well in terms of force required to
18 actually move that gas?

19 A. I don't know the answer to that question.

20 The information that would be available
21 to make the calculation, to the extent it exists,
22 would probably be in the files of Range. And I
23 haven't had access to that data, so I couldn't give
24 you an opinion on that.

25 Q. What information would you have to have to

1 cause, in my opinion.

2 Q. You testified earlier about natural gas
3 dissipating over time, and I want to -- I want to
4 explore that with you a little bit.

5 Has the natural gas in the Lake Country
6 Acres water wells dissipated over time, or do you
7 know?

8 A. That particular well, I don't recall what
9 the testimony provided on that well.

10 Q. How many water wells are in the Lake Country
11 Acres public water supply?

12 A. I don't know.

13 Q. Is there -- is there any information that's
14 publicly available about the Lake Country Acres public
15 water supply water wells that would cause one to know
16 that there is an issue of methane in those water
17 wells?

18 MR. RITTER: Objection, form.

19 A. I have no idea.

20 Q. Have you ever seen any photographs of the
21 Lake Country Acres public water supply wells that
22 show -- that have "flammable" signs right next to
23 them, "danger"?

24 A. I don't believe I've seen any photographs.
25 I recall some testimony about there being signs, but I

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1 make that sort of calculation?

2 A. Well, I think you would need to have some
3 information on porosity and permeability in the
4 Strawn. Perhaps if there were some pressures taken,
5 perhaps during the drilling process, things like that
6 that --

7 I mean, I can't tell you all the
8 information that you would need to make the
9 calculation. But those would be some of the types of
10 things that you would need in order to do that.

11 Q. So as you sit here today, you don't know
12 whether any pressures are sufficient in the annulus of
13 the Butler or Teal wells to have any causal effect a
14 half a mile away where the Lipsky well is situated?

15 MR. RITTER: Object to form.

16 A. Well, not actual values for pressures. What
17 we do have, though, is the facts. And that is: What
18 is occurring at the Lipsky water well, how were the
19 Teal and Butler wells completed. And when you put all
20 of that together, I think the only logical conclusion
21 that you can reach is that there is a cause and
22 effect.

23 What is that precise pressure number?

24 I could not tell you. But all of the other
25 information that is available points to that being the

1 don't recall seeing any photographs.

2 Q. As you sit here today, do you have an
3 opinion one way or the other as to whether any natural
4 gas in the Lake Country Acres public water supply
5 water wells has dissipated over time?

6 A. I'm sorry. I take that back.

7 I do believe that there were some
8 photographs at the Railroad Commission hearing. I
9 don't recall if it was the well you're talking about,
10 but with those sorts of signs.

11 But, no, I don't have any other
12 information on those wells.

13 Q. Do you have any information as to whether
14 the Hurst well that flared gas in 2005 that you've
15 testified about had natural gas in it when it was
16 tested in late -- in December 2010 or in January 2011.

17 A. Well, I don't specifically recall the Hurst
18 well from those tests.

19 What I generally recall is the map that
20 was presented that had those test quantities posted by
21 the various wells. I do believe there was a -- what I
22 recall to be a fairly low number posted on the Hurst
23 well, but beyond that I don't know.

24 Q. Do you have any opinion as to whether
25 natural gas has been in the Hurst well at all times

37 (Pages 145 to 148)

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<p>1 since 2005 up to the time that the water was tested in 2 that water well in December 2010 or January 2011? 3 A. Do I have an opinion? 4 Q. Yes, sir. 5 A. If there's been gas present there at all 6 times? I -- there's no way to determine that. 7 I mean, to my knowledge that well 8 wasn't tested every day. So I don't know how you 9 could conclude one way or -- one way another if 10 natural gas was present there each and every day. 11 I do know at least, from reading the 12 testimony, that what was there originally pretty much 13 dissipated or disappeared over about the first month. 14 And that well has been being used, apparently since 15 that point in time back in '05, with no apparent 16 problems. 17 Q. If you can't tell and there's no way to know 18 whether natural gas has been in the Hurst water well 19 at all times since 2005 through December or January -- 20 December of 2010 or January 2011, there's also no way 21 to know whether there's been natural gas in the Lipsky 22 water well since 2005, when it was drilled, through 23 the time it was tested in January 2010 or 2011, 24 correct? 25 A. Each and every day, I think that would be</p>	<p>1 Q. Okay? 2 A. (Witness nods head up and down.) 3 Q. So, if we can get that out of the way, let's 4 move on to more substantive matters. All right? 5 A. Okay. 6 Q. All right. So, in connection with the 7 testing of the water wells in December 2010 or January 8 2011, was it your prior testimony that the water wells 9 as tested and the results showed relatively small 10 amounts of methane in the water? 11 MR. RITTER: Objection, form. 12 A. I think that's generally correct, with the 13 exception of two wells: the Lipsky well, and whatever 14 the name of that well is that's either on or just off 15 of the Teal and Butler well pad. 16 And, you know, we could probably pull 17 out that map, if you have a copy of it, and figure out 18 what that well name was. But with the exception of 19 those two wells, I think everything else -- at least 20 my recollection is it would be relatively low, or a 21 low number. 22 Q. Do you have any recollection that the Lipsky 23 water well, there were two samples that were taken; 24 and one showed about 2 milligrams of dissolved methane 25 per liter, and the other was about 2.3 or 2.4</p>
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<p>1 correct. But what we do know about the Lipsky well 2 is -- or at least my knowledge is, every time it was 3 tested or has been attempted to be used, there has 4 been the presence of gas. 5 So -- but, you know, I don't believe 6 that's been each and every day. But I think they're 7 batting a hundred percent, since gas first appeared, 8 that gas has always been there when it's been checked 9 for. 10 Q. You talked earlier about the results of the 11 water well testing in December 2010 or January 2011 12 being relatively small amounts. Is that a 13 mischaracterization, or is that a fair statement of 14 your prior testimony? 15 A. It's probably closer to a 16 mischaracterization than being a fair statement. 17 Number one, I don't recall if the -- if 18 that testing was in January or December, number one. 19 Q. Well, let me represent to you that I think 20 most of it was in January of 2011. If it wasn't, it 21 was in December. 22 A. Okay. 23 Q. Because the hearing wasn't called until 24 December. 25 A. Okay.</p>	<p>1 milligrams per liter? 2 A. I remember the number being 2, 2 point 3 something. I'll take your word for it that it's 4 milligrams per liter. I'd just have to look at that. 5 I don't recall the units of the measurement. 6 Q. Okay. And, honestly, I think that's 7 accurate; but I don't know for a hundred percent as I 8 sit here either. 9 But in any event, do you have any 10 opinion about whether -- based on national standards 11 of methane dissolved in water, whether that's high, 12 low, indifferent; or do you just know at all? 13 A. Stand -- standards for what? 14 Q. Standards for it being any kind of concern. 15 A. In water wells? 16 Q. Yes. Or just dissolved in water, drinking 17 water. 18 A. I don't know. I haven't looked at that. I 19 don't even know if -- are there any standards? Your 20 question implies there are standards. 21 Q. You don't remember reading about that in the 22 Railroad Commission record? 23 A. No, I don't. I'm sorry. 24 Q. You don't remember seeing an exhibit that 25 showed what those standards are and when natural</p>

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1 methane dissolved in water might become a concern?

2 **A. I don't recall that.**

3 Q. Would that make any difference to your
4 opinions in this case, if you knew that information?

5 **A. No.**

6 Q. The other well that you talked about, do you
7 have any knowledge or information about how it was
8 related to national standards in connection with
9 methane dissolved in water?

10 MR. RITTER: Objection, form.

11 **A. The other well being?**

12 Q. The Purdue well or the other well that you
13 said was higher than the others.

14 **A. I think the other well -- is the Purdue well
15 the one that's right at the Teal and Butler pad?**

16 **I -- that name sounds familiar. But, I
17 mean, I don't have any knowledge one way or the other
18 about any sort of standards.**

19 Q. It's one that there was testimony that was
20 actually drilled into -- or it's one that there was
21 testimony it was actually drilled into the Strawn
22 formation. Do you remember that?

23 **A. I remember our conversation about it earlier
24 today. That's the one that had the highest level from
25 the testing, correct? I believe that's the one**

1 **But when you look at the history of the**

2 **Lipsky well and how it's performed, it appears to me
3 that it is a completely different circumstance than
4 these other water wells that we've been talking about.**

5 Q. Okay. And I want to explore that completely
6 other different circumstance that you've been talking
7 about, and I want to try to find out exactly what
8 you're basing that on.

9 As I understand your testimony, you've
10 told us that that Lipsky water well is today
11 essentially nothing but a gas well. Is that -- is
12 that a mischaracterization of what you said earlier,
13 or is that true?

14 **A. No. It -- the way it's been described to
15 me, it appears that it's probably more of a gas well
16 than it is a water well.**

17 Q. All right. And you got that information
18 from Mr. Stewart and Mr. Ritter, right?

19 **A. Yes. And I did review Mr. Lipsky's
20 deposition. I'm just trying to recall what he talked
21 about there.**

22 **You know, it's -- I think it's also
23 based on some of the other testimony. But that's
24 primarily the source of my information.**

25 Q. And when did -- when did Stewart and Ritter

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1 **you're referring to?**

2 Q. I think that's right.

3 **A. Which is right there at the well site, so --
4 but that's the extent of my knowledge.**

5 Q. Well, when you say right there at the well
6 site, I mean, it's hundreds of feet away, right?

7 MR. RITTER: Objection, form.

8 **A. I don't -- from my recollection of looking
9 at a map, it's probably no more than a couple hundred
10 feet. But, I mean, we could certainly get a map out
11 and measure it off. It is what it is.**

12 **But I remember it being very close.**

13 Q. Given your testimony today about the
14 geologic unconformity that exists in the area of the
15 Lipsky water well and the natural connections between
16 the Strawn formation and the water aquifer in this
17 area, would you agree with me that it's reasonable to
18 conclude that based on that, that one would expect to
19 see some amount of methane in the Lipsky water well,
20 notwithstanding whether the Butler and Teal wells
21 existed?

22 MR. RITTER: Objection, form.

23 **A. I think that it would be reasonable to
24 conclude that there would be very small trace amounts
25 as shown in the other wells.**

1 tell you that Lipsky had ceased using the water well?

2 **A. When did they tell me that?**

3 Q. Yes, sir.

4 **A. I couldn't tell you.**

5 Q. Okay. Forget -- let's ignore when they told
6 you that, and let's focus on: Did they tell you the
7 date that Lipsky ceased using the water well?

8 **A. No. Well, if they -- I don't recall. If
9 they did, I don't recall what they told me.**

10 Q. Did Mr. Ritter or Mr. Stewart tell you that
11 Lipsky's water well had been tested in December 2010
12 or January 2011 in connection with preparation for the
13 Railroad Commission hearing?

14 **A. Did they tell me that? I don't recall them
15 telling me that.**

16 Q. Did you see evidence in the Railroad
17 Commission hearing, that you say you reviewed, that
18 showed that his water well had been tested in --
19 sometime in or around the period of December 2010 or
20 January 2011?

21 **A. Well, yeah. It's -- it's the information we
22 just talked about. I think there were numbers posted
23 on a map. You gave me the numbers of 2 or 2.23 or
24 something milligrams per liter that the Lipsky well
25 tested during that testing period, which you've**

39 (Pages 153 to 156)

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1 indicated was mostly in January, perhaps a little bit
2 in December. So --

3 Q. Okay. When you saw that information, did
4 you pick up the phone and call Ritter or Stewart and
5 say, hey, guys, you told me that this thing wasn't
6 really even producing water anymore, and it's mainly a
7 gas well. How did they get these samples out of here
8 to test for it?

9 MR. RITTER: Object to form.

10 A. No.

11 Q. Didn't do that?

12 A. (Witness shakes head from side to side.)

13 Q. Did you read about the process used to test
14 for the water in the water well in the Railroad
15 Commission hearing?

16 A. I'm sure I did, because I read the entire
17 transcript.

18 Q. And do you recall that the company that did
19 the testing would allow the water to flow for 25 or 30
20 minutes before they actually took a sample?

21 A. I don't specifically recall that, no.

22 Q. If it's in there, though, you read it?

23 A. If it's in there, I read it, yes.

24 Q. Did you raise any questions when you read
25 that about, gee, how is that happening if this thing

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1 is really not producing water?

2 A. Well, I never said it wasn't producing
3 water. It, basically, as I understand it, surges so
4 bad that the use of that well for a water well on a
5 daily basis is in effect impossible because it makes
6 so much gas.

7 It's my understanding that water comes
8 out of the well, perhaps, and surges; so I'm sure
9 water could be collected in some manner.

10 What I believe I indicated to you was
11 that, for all intents and purposes, it's not a useful
12 water well because it can't be used as one would
13 normally use a water well for everyday use.

14 Q. Okay. And how often does the water well
15 surge?

16 A. I have no idea. That was what it was
17 described to me as.

18 Q. And so when you say, for all intents and
19 purposes, the water well can't be used as a water
20 well, you're basing that on what Mr. Lipsky's lawyers
21 told you?

22 A. And the -- Mr. Lipsky's deposition. I
23 believe those sorts of things were discussed there.

24 I don't know how much of that was
25 gotten into at the Commission hearing. But those

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1 would be my sources, the Railroad Commission data or
2 Mr. Stewart or Mr. Ritter.

3 Q. Have you talked to Mr. Lipsky about his
4 attempts to use the water well personally?

5 A. Well, the only time I've talked with
6 Mr. Lipsky was at that meeting.

7 Q. Did you talk to him at that meeting about
8 his attempts to use the water well?

9 A. I remember -- I mean, he -- he gave me a
10 chronology of what had happened.

11 I don't specifically recall that we
12 talked about, you know, him trying to use the well
13 and, you know, what it would do and what it's been
14 doing. Again, that was, you know, almost a year ago
15 now. Nine or ten months, anyway.

16 But he may have mentioned something
17 like that at that meeting but only in his description
18 of what he went through, when he first started
19 noticing gas, what the well did, who he called. You
20 know, those sorts of things.

21 Q. Did he give you a written chronology?

22 A. No.

23 Q. Have you done any sort of independent
24 verification of whether the Lipsky water well produces
25 water and can be used as a water well?

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1 A. Other than what I've told you, no.

2 Q. And so your answer is, no, you haven't --
3 you haven't gone out, done any testing on the water
4 well at all?

5 A. I have not gone out and tested the water
6 well.

7 Q. Other than what Mr. Ritter and Mr. Stewart
8 have told you about the water well, and whatever you
9 gleaned from reading Mr. Lipsky's deposition about the
10 water well, what else do you rely on to say that
11 somehow or another Lipsky's water well is
12 characteristically different than these other water
13 wells in the area that were tested in December of 2010
14 or January 2011?

15 A. Well, you can -- you know, the Railroad
16 Commission testimony, the deposition testimony of
17 Mr. Peck and Mr. Malone where the -- the observations
18 that they made about the Lipsky well.

19 Things like, they didn't encounter gas
20 when the well was first drilled. It wasn't until, you
21 know, four years or so later that they tried to
22 replace the pump, thinking it was a pump issue, and
23 before they realized that, you know, that the well was
24 basically just producing too much gas to effectively
25 pump water.

40 (Pages 157 to 160)

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1 **Their testimony about -- and the Range**
2 **witnesses' testimony about the -- what the other water**
3 **wells did. For example, the Hurst well encountered**
4 **gas immediately. But that dissipated within the first**
5 **month. And there apparently hasn't been a problem**
6 **since because that well is being used. Apparently**
7 **they've tried to light the well to see if there was**
8 **any gas. I think the testimony was it wouldn't light.**
9 **Those are the things that I'm relying**
10 **on that indicate that the Lipsky well is different**
11 **than the other water wells, that the conditions that**
12 **they're encountering there are different.**
13 Q. If Mr. Lipsky has drilled another water well
14 out on his property, would you expect it to be
15 characteristically different than the other water
16 wells in the area?
17 A. And, I'm sorry, I might also add that those
18 testing results which showed, you know, the various
19 levels and the Lipsky well being much, much higher
20 than the other wells tested.
21 And, I'm sorry. Your question that you
22 just asked, if you could repeat it.
23 Q. If Mr. Lipsky has drilled another water well
24 on his property this past summer, in the summer of
25 2011, would you expect it to be characteristically

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1 different than the other water wells in the area?
2 A. Would I expect it to be different? I would
3 just have to look to see where he drilled the well,
4 how deep he drilled it, you know, what was different,
5 you know, about the drilling of that well versus other
6 wells to really answer that.
7 I don't even know if a well exists.
8 Q. Okay.
9 A. But -- so I can't answer you if I would
10 expect it to be different or the same until I --
11 Q. Well, let's assume -- let's assume there's
12 another one that's been drilled. Okay?
13 A. Okay.
14 Q. If that's true, based on your theory, would
15 you expect that water well to have the same or
16 different characteristics than the water well we've
17 been talking about all day today, the Lipsky water
18 well?
19 A. Well, I can't answer that. I don't know
20 where it was drilled in relationship to the first
21 Lipsky well, where it was drilled in relationship to
22 the Teal and the Butler, what were the geologic
23 conditions there, how deep was it drilled -- I mean,
24 there's no way to answer your question.
25 Q. Okay. Well, let's assume the second Lipsky

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1 water well was drilled in June of 2011, okay?
2 A. Okay.
3 Q. And let's assume that it's on the same
4 property that the first Lipsky well sits on. Okay?
5 A. Okay.
6 Q. You're familiar -- you know where that
7 property is?
8 A. I know generally.
9 Q. Okay.
10 A. The property's been described in the various
11 depositions and at the hearing.
12 Q. And you've seen maps that show where that
13 property's located?
14 A. I have.
15 Q. Okay. And let's assume that well is drilled
16 to the same depth as the first Lipsky water well.
17 Would you expect it to have about the
18 same natural gas content, less, more, or do you know?
19 A. Well, by my count there were about four
20 assumptions there. We don't know anything about the
21 geology, where on the property, geologically speaking,
22 related to the first Lipsky well.
23 So you're going to have to give me a
24 lot more assumptions for me to at least try to help
25 you with an answer.

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1 **I don't -- I don't think that question**
2 **can be answered.**
3 Q. Okay. Well, since the geology at the first
4 Lipsky well seems to be the hang-up, why don't you
5 tell us what the geology is at the first Lipsky well
6 so then we can assume exactly what that is for the
7 second well.
8 A. The same perhaps -- and I'm just trying to
9 think what geologic conditions would impact it, but
10 the same structural position. Has the zone thinned or
11 thickened? Are you in the exact same sand body that
12 the first Lipsky well is in? I mean, which direction
13 from the Lipsky well is this new well? Is it further
14 from the Teal and Butler? It is closer?
15 All of those things, I think, would
16 impact what results you might expect. But, you know,
17 the problem with all this is, you know, there's a lot
18 of unknowns in the -- in the world of geologic -- of
19 geology and geological interpretations. And what you
20 think might be going on may not necessarily be what is
21 going on geologically speaking.
22 So, again, I don't know how you can
23 answer your question. I don't know what you would
24 know to expect with that second well. You'd just have
25 to drill it and look to see what you got. And

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<p>1 whatever you got, then try to figure out, is that what</p> <p>2 you would expect or not.</p> <p>3 Q. Are there geological unknowns in the</p> <p>4 immediate area where the first Lipsky water well is</p> <p>5 located?</p> <p>6 MR. RITTER: Objection, form.</p> <p>7 A. Absolutely. I mean, you don't know</p> <p>8 everything about the geologic formations. You have</p> <p>9 certain points that you have information, but in</p> <p>10 between those points you have to interpret.</p> <p>11 And you really don't -- I mean, you use</p> <p>12 your knowledge and your training to make the best</p> <p>13 interpretation that you can. But does that ensure</p> <p>14 that you're correct?</p> <p>15 If you could do that, there wouldn't be</p> <p>16 any dry holes drilled, whether they be water or oil</p> <p>17 and gas. So, absolutely, you don't know everything</p> <p>18 there is to know about the various geologic</p> <p>19 formations.</p> <p>20 Q. Are you telling us that, even like within</p> <p>21 the distance between the first Lipsky water well and</p> <p>22 the Lipsky water well that was drilled in June of</p> <p>23 2011, that may be within a hundred feet of each other</p> <p>24 or a couple hundred feet of each other, that there can</p> <p>25 be vast variations in the geologic formations between</p>	<p>1 water well that was drilled in June of 2011 would be</p> <p>2 pure speculation at this point for you, correct?</p> <p>3 A. No.</p> <p>4 Q. It wouldn't be?</p> <p>5 A. No.</p> <p>6 Q. Why?</p> <p>7 A. We started at ten after 10:00 this morning.</p> <p>8 Everything I've said since then is the basis for my</p> <p>9 conclusions.</p> <p>10 You use the data that you know, the</p> <p>11 timing that -- the performance, the facts that you've</p> <p>12 seen or learned on the existing water wells.</p> <p>13 You look at the completion of the Teal</p> <p>14 and the Butler.</p> <p>15 You look at, there was bradenhead</p> <p>16 pressure on the Butler.</p> <p>17 You know that the Strawn is open and</p> <p>18 hasn't been sealed off.</p> <p>19 All of those things point to the only</p> <p>20 logical conclusion, in my opinion, that you can make</p> <p>21 is that these wells had -- or were more likely than</p> <p>22 not the cause of the problem seen at the Lipsky well.</p> <p>23 You look at how other operators were</p> <p>24 drilling and completing their wells. Where were they</p> <p>25 setting surface casing? Why? Was it different?</p>
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<p>1 those two?</p> <p>2 MR. RITTER: Objection, form.</p> <p>3 A. There could be. I mean, you'd just have to</p> <p>4 look at the circumstances and the sort of data that</p> <p>5 you had.</p> <p>6 Q. Is it also true that between the Butler and</p> <p>7 Teal wells and the Lipsky water well, there could be</p> <p>8 vast differences in the geologic formations between</p> <p>9 those two?</p> <p>10 A. In the aquifer or --</p> <p>11 Q. Sure.</p> <p>12 A. -- what formation? Any --</p> <p>13 Q. Throughout the formations.</p> <p>14 A. I mean, the answer is yes because, again,</p> <p>15 you don't have data points close enough to determine</p> <p>16 what is exactly there.</p> <p>17 So, you know, you use the data points</p> <p>18 that you have and interpret between them based upon</p> <p>19 what you're seeing on a regional basis.</p> <p>20 Sometimes you can do that with good</p> <p>21 accuracy. Sometimes you can't, unfortunately. I</p> <p>22 mean, you wish you could, but...</p> <p>23 Q. So, to try to -- to try to provide any sort</p> <p>24 of opinion as to whether the Butler or Teal wells have</p> <p>25 any sort of causal relationship with the second Lipsky</p>	<p>1 Why did the Commission require plugs to be set at a</p> <p>2 thousand feet when wells in this area were plugged?</p> <p>3 All of those things go into my analysis</p> <p>4 that enables me to reach the conclusion that I've</p> <p>5 reached.</p> <p>6 That's not speculation. I'm just</p> <p>7 looking at the data, the publicly available data, and</p> <p>8 reaching what I think is the only logical conclusion</p> <p>9 that you could reach.</p> <p>10 MR. SIMS: Okay. Objection,</p> <p>11 nonresponsive.</p> <p>12 Q. As you sit here today, I'm only asking you</p> <p>13 what you know.</p> <p>14 As you sit here today, do you know</p> <p>15 whether the Lipsky water well drilled in June of 2011</p> <p>16 on the Lipsky property has any natural gas in it?</p> <p>17 MR. RITTER: Objection, form.</p> <p>18 A. I think it's -- all of the data that we've</p> <p>19 seen indicates that since 2009, it has had natural gas</p> <p>20 in it.</p> <p>21 It didn't apparently have it initially.</p> <p>22 So I do know that based upon all of the evidence that</p> <p>23 I've looked at.</p> <p>24 MR. SIMS: Okay. Objection,</p> <p>25 nonresponsive.</p>

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1 Q. Listen to my question.
2 I'm talking about the water well that
3 was drilled in June of this summer --
4 **A. Okay, I'm sorry.**
5 Q. -- June 2011.
6 As you sit here today, do you know
7 whether that water well has any methane in it?
8 MR. RITTER: Objection, form.
9 **A. And I told you I don't even know if such a**
10 **well exists. So I will assume for the purpose of your**
11 **question that one does exist. I don't have any**
12 **information on it one way or the other.**
13 Q. Okay. And if that's true, then you have no
14 information, no knowledge about whether the Butler and
15 Teal wells have any causal effect -- are having any
16 causal effect on that water well today, do you?
17 MR. RITTER: Objection, form.
18 **A. On that one?**
19 Q. On that well.
20 **A. On that well drilled in June of '11?**
21 Q. Yes, sir.
22 **A. If you assume that there is natural gas in**
23 **that assumed well, then I would want to look at where**
24 **it was drilled and all the particulars. I may reach**
25 **the conclusion that the Teal and Butler did have an**

1 you have -- you have no data about it?
2 MR. RITTER: Objection, form and asked
3 and answered. We've been over this a couple of times.
4 Q. Correct?
5 **A. You're correct, I don't have any data about**
6 **that well.**
7 Q. You don't have any data about the geology
8 under that well?
9 **A. No data of any kind. And I'm not rendering**
10 **an opinion of any kind with regard to that well that**
11 **you have had me assume was drilled in June of 2011.**
12 MR. RITTER: Where are we on time on
13 the record?
14 THE REPORTER: 4 hours and 39 minutes.
15 MR. SIMS: I think I'm getting really
16 close. Why don't you give me five minutes and let's
17 come back and see if we can wrap this up.
18 THE VIDEOGRAPHER: We are off the
19 record at 4:37 PM.)
20 (Whereupon a short recess was taken.)
21 THE VIDEOGRAPHER: We're back on the
22 record at 5:00 PM.
23 BY MR. SIMS:
24 Q. Mr. Gore, let me show you what I've marked
25 as Exhibit 30 to your deposition. Do you recognize

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1 effect on that well, also.
2 **But I don't have any knowledge of the**
3 **well or any data regarding the well, so I can't tell**
4 **you one way or the other that they did or they didn't.**
5 Q. Okay. So for you to testify today that the
6 Butler or Teal well had any causal effect on the
7 Lipsky Water Well Number 2 would be pure speculation
8 today for you, correct?
9 MR. RITTER: Objection, form. And
10 objection, asked and answered.
11 **A. I'm not sure that I would agree with the**
12 **speculation part, but I don't have any data to render**
13 **an opinion one way or the other.**
14 Q. If you don't have any data to render an
15 opinion one way or the other, then why can't you admit
16 it would just be pure speculation for you to try to
17 give an opinion about it?
18 **A. Well, I guess the problem I'm having is, I'm**
19 **not giving an opinion about it. So how can I**
20 **speculate about something that I'm not giving an**
21 **opinion about?**
22 Q. My question is: If you were to give an
23 opinion about it today, about whether the Teal and
24 Butler wells had any causal effect on the Lipsky Well
25 Number 2, that would be pure speculation today because

1 that?
2 **A. I do.**
3 Q. And did you bring that with you today to
4 your deposition?
5 **A. I did.**
6 Q. What is it?
7 **A. It was an article that was in the Austin**
8 **American Statesman last Thursday, which was the day**
9 **after Mr. Richter's deposition. And I copied it and**
10 **emailed a copy to Mr. Stewart and Mr. Ritter. But**
11 **regarding a study being done by the University of**
12 **Texas regarding fracking and freshwater contamination.**
13 **I just thought it was kind of**
14 **interesting, the fact that it was in the paper the day**
15 **after we had just spent all day in a deposition over**
16 **similar-type issues.**
17 Q. Did you provide any commentary to them in
18 your email to them about it?
19 **A. No.**
20 Q. Has that email been destroyed now?
21 **A. As far as the cover part, yes.**
22 Q. You also brought with you Exhibit 31 to the
23 deposition, is that correct?
24 **A. That's correct.**
25 Q. And what is that?

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<p>1 A. This is just basically a map representation 2 of Mr. Richter's spreadsheet which you had in front of 3 me earlier. 4 But the wells -- I think eleven wells 5 that he had identified that had deeper surface casing 6 set, those are just located on the map, with the red 7 triangles. 8 Q. Is that -- is that map accurate? 9 A. Well, it -- it's as accurate -- the base 10 information is from Railroad Commission data. So it's 11 only as accurate as the Railroad Commission's mapping 12 database is accurate. 13 Q. Who prepared that map? 14 A. We prepared it in-house in our mapping 15 system. We imported the mapping information from the 16 Railroad Commission and created the map. 17 Q. Can you identify the Range pad site on 18 there? 19 A. Well, I believe that the surface location is 20 shown -- 21 MR. RITTER: Do you want him to 22 physically mark it? 23 MR. SIMS: No, just tell me. 24 BY MR. SIMS: 25 Q. Can you identify it; is it shown on there?</p>	<p>1 well on Exhibit 31? 2 A. It looks like it would be south and a little 3 bit east. 4 Q. Where did the information come from to input 5 the location of those water wells onto that map? 6 A. I believe it was downloaded, that data. I 7 would have to confirm at the office, but -- I'm not 8 sure. I probably shouldn't speculate on what the 9 source of that was. I would just need to check. 10 Q. But as you sit here today, you believe 11 Exhibit 31 is accurate? 12 A. To the best of my knowledge it is. 13 Q. Other than Exhibit 29, that we marked, and 14 Exhibit 30 and Exhibit 31, are you aware of any other 15 exhibits or documents that you brought with you to 16 your deposition today? 17 A. No. These are the only things that, to my 18 knowledge, wouldn't have been in our files as of 19 Mr. Richter's deposition last week. So -- and that's 20 why I brought these. 21 Q. Have you -- have you reviewed everything 22 that was on the disk that was provided to us and 23 compared that to your files to see if everything 24 that's been provided to us is consistent with what's 25 in your files?</p>
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<p>1 A. It is -- well, it is shown. The surface 2 location, the well bore trace of both wells, and then 3 the bottom hole location. 4 Q. Are the well bore pads of the Butler and 5 Teal shown on Exhibit 31? 6 A. Yes. 7 Q. Is the Lipsky water well shown on Exhibit 8 31? 9 A. I believe so, yes. 10 Q. How far away is the Lipsky water well from 11 the closest well bore path of either the Butler or 12 Teal wells on Exhibit 31? 13 A. It looks like it's probably about 2,000 14 feet. 15 Q. So, as you sit here today, it's your 16 testimony and belief that the Lipsky water well is 17 about 2,000 feet away from the closest well bore path 18 of either the Butler or Teal wells? 19 A. I mean, it's just based on, you know, my 20 eyeballing the map. But that looks like it would be 21 about accurate. 22 Q. Okay. Can you find the Oujesky water well 23 on that map? 24 A. Yes. 25 Q. Is it north or south of the Lipsky water</p>	<p>1 A. I have not. 2 Q. Do you maintain your actual files on this 3 matter in your offices? 4 A. Yes. 5 Q. And in order to provide the documents on the 6 disk, did you have all those files scanned; or did you 7 make a copy and send them to the lawyers and they had 8 them scanned? 9 A. Neither. 10 Q. How did it come about that they ended up on 11 a disk? 12 A. We sent our boxes of files to Mr. Stewart's 13 office, and I'm assuming he had someone -- if they 14 ended up on a disk, I'm assuming he had someone do 15 that. 16 Q. When you sent your -- you say you sent your 17 boxes of files, did you send your originals; or did 18 you make a copy and send them to Stewart? 19 A. Originals. 20 Q. Have you received those back? 21 A. Yes. 22 Q. Did you have any kind of system to check to 23 see if everything you had in the originals was what 24 came back to you? 25 A. No.</p>

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<p>1 Q. Are there any characteristics about a water</p> <p>2 well that is shut down and not being used that causes</p> <p>3 it to be different than other water wells that are</p> <p>4 being consistently used in terms of gases or other</p> <p>5 characteristics of the water in the water well?</p> <p>6 MR. RITTER: Objection, form.</p> <p>7 A. I don't understand your question.</p> <p>8 Q. If a water well is not being used, if it's</p> <p>9 closed down, it's disconnected, not being used at all,</p> <p>10 will it tend to show more or less gases than other</p> <p>11 water wells that are being used, or do you know?</p> <p>12 A. I don't know.</p> <p>13 Q. If a water well is being consistently</p> <p>14 vented, will it tend to show more or less gas than</p> <p>15 ones that are being consistently vented?</p> <p>16 MR. RITTER: Objection, form.</p> <p>17 A. I don't know what it would show.</p> <p>18 Q. Do you know what a -- what a vent on a water</p> <p>19 well is?</p> <p>20 A. I believe so, yes.</p> <p>21 Q. Do you have any knowledge or understanding</p> <p>22 of whether the Lipsky water well has a vent on it?</p> <p>23 A. I seem to recall from the testimony that it</p> <p>24 does, but I would probably need to double check that.</p> <p>25 I don't specifically recall right now.</p>	<p>1 A. I don't think I have that -- well, let me</p> <p>2 look. Yeah, I've got it.</p> <p>3 Okay. I've got it.</p> <p>4 Q. Do you know the reason any of those water</p> <p>5 wells -- excuse me. Do you know -- scratch that.</p> <p>6 With respect to Exhibit 12, have you</p> <p>7 done any investigation to determine why any of those</p> <p>8 gas wells were drilled in terms of the surface casing</p> <p>9 and cemented to the depths that they were?</p> <p>10 A. I didn't understand your question.</p> <p>11 Q. Okay. With respect to Exhibit 12, it shows</p> <p>12 or purports to show the depth of surface casing on the</p> <p>13 wells shown there, correct?</p> <p>14 A. Yes.</p> <p>15 Q. Do you know why any of those surface casings</p> <p>16 were placed at the depths that they were?</p> <p>17 A. No.</p> <p>18 Q. Would you agree that the operator had to get</p> <p>19 an exception from the Railroad Commission in order to</p> <p>20 set the depths where they were?</p> <p>21 A. I think to the extent it was more than 200</p> <p>22 feet below the recommendation, then, yes, they'd have</p> <p>23 to obtain an exception.</p> <p>24 MR. SIMS: What's our next exhibit?</p> <p>25 THE REPORTER: Do you have the list</p>
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<p>1 Q. And you don't recall when Lipsky ceased</p> <p>2 using the water well?</p> <p>3 A. No.</p> <p>4 Q. Do you know whether the vent was closed when</p> <p>5 Lipsky ceased using the water well?</p> <p>6 A. Assuming there -- it is equipped with a</p> <p>7 vent, I don't know the answer to that.</p> <p>8 Q. Could -- is it possible that using the water</p> <p>9 well regularly and/or opening the vent or having it</p> <p>10 open all the time could change the amount of gas shown</p> <p>11 dissolved in the water and any head space gas</p> <p>12 readings?</p> <p>13 MR. RITTER: Objection, form.</p> <p>14 A. I don't know.</p> <p>15 Q. In terms of the -- just a second.</p> <p>16 (Short pause.)</p> <p>17 In terms of the Exhibit 12 that we've</p> <p>18 looked at, which is the chart that shows other gas</p> <p>19 wells within a two-mile radius of the -- I think the</p> <p>20 Lipsky water well, are you familiar with that?</p> <p>21 A. Is that Mr. Richter's table?</p> <p>22 Q. Yes.</p> <p>23 A. Okay.</p> <p>24 Q. It's Exhibit 12 that we've looked at today</p> <p>25 if you want to refer to it.</p>	<p>1 down there? 32.</p> <p>2 MR. SIMS: 32.</p> <p>3 BY MR. SIMS:</p> <p>4 Q. I'll show you what I've marked as Exhibit</p> <p>5 32. Do you recognize the form of that document?</p> <p>6 MR. RITTER: Is this a new document?</p> <p>7 Can I get a copy of it?</p> <p>8 MR. SIMS: Yeah, I'm sorry, I don't</p> <p>9 have it. This is the only copy I have.</p> <p>10 A. I do, yes --</p> <p>11 BY MR. SIMS:</p> <p>12 Q. Is that --</p> <p>13 A. -- generally.</p> <p>14 Q. Is that a Request For Alternative Casing</p> <p>15 Program, and in parentheses, SWR 13 Exception, close</p> <p>16 parentheses, document that you get from the Railroad</p> <p>17 Commission?</p> <p>18 A. It appears to be, yes.</p> <p>19 Q. And with respect to that well that's</p> <p>20 depicted there, is that one that's in Exhibit 12?</p> <p>21 A. Let's see. Well, I'm looking for something</p> <p>22 to cross-reference them.</p> <p>23 Q. You say it's the Brite -- is it the Brite</p> <p>24 2H, B-R-I-T-E 2H well, Devon?</p> <p>25 A. Oh, yeah. There it is. I'm sorry. Right.</p>

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1 Q. Do you see the Brite 2H Devon well on the
2 chart that's Exhibit 12?
3 A. I do.
4 Q. What is the surface casing depth of the
5 Brite 2H on the chart?
6 A. On -- well, the proposed depth is -- appears
7 to be 600 feet.
8 Q. Okay. And what is it shown on the chart?
9 A. On Exhibit 12?
10 Q. Yes.
11 A. 662 feet.
12 Q. Where did that information about 662 feet
13 come from?
14 A. Railroad Commission information.
15 Specifically which form, you'd have -- Mr. Richter
16 constructed the form, so he would have to answer that
17 question.
18 But it would be from some sort of
19 Railroad Commission information that he either had
20 gathered or pulled.
21 Q. Does Exhibit 32 show or list in the remarks
22 section the reason that Devon wanted to seek an
23 exception from the Railroad Commission to go below
24 what it ordinarily would have been allowed to go?
25 A. Let's see.

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1 Well, I don't see a remarks column.
2 Maybe you could point it out to me.
3 Q. Okay. On Exhibit 32, right here in the
4 middle of the page, you see a remarks?
5 A. Oh, okay.
6 Q. And then out beside it, there's a line with
7 some typewriting in there?
8 A. Gotcha.
9 Q. What does that say?
10 A. The remarks: Extra surface casing depth for
11 well control assurance.
12 Q. What is well control assurance?
13 A. Well, it -- I think it would be just what it
14 says, controlling the drilling of the well.
15 Q. How does additional surface casing depth
16 help an operator control the drilling of the well?
17 A. Well, I suppose it could be for many
18 different reasons.
19 Things like, if you're drilling through
20 formations that are under pressure, you know, highly
21 permeable, that you would want to case off so you
22 wouldn't lose returns.
23 If you're wanting to isolate certain
24 zones from other zones, those would be the type things
25 that I would think you would mean by well control

1 assurance.
2 Q. As I understand it, you haven't -- you
3 haven't talked with any operators, and you have no
4 idea why any of those operators sought exceptions
5 under Rule 13 to put their surface casing lower than
6 what the rule normally allows?
7 MR. RITTER: Objection, form.
8 A. No, I haven't.
9 Q. If I understand your testimony today, at
10 least in the area -- well, within -- is it your
11 testimony that within -- at least within two miles of
12 the location of the Lipsky water well, that an
13 operator is required to seek an exception from the
14 Railroad Commission under Rule 13 to be able to put
15 the surface casing lower than what the rule normally
16 requires in order to comply with the rule?
17 MR. RITTER: Objection, form.
18 A. Restate that for me.
19 Q. Yeah.
20 What I'm having trouble with is this
21 testimony somehow that complying with Rule 13 about
22 setting the surface casing violates Rule 13 because
23 it's not lower than what the rule allows.
24 MR. RITTER: Objection, form.
25 A. Well, I hear what you're saying. I mean,

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1 that -- I'm not sure I follow you. I don't think
2 that's what I'm saying.
3 Q. Well, let me try to put it this way:
4 Range -- you're aware that the Water
5 Board letter for Range on both the Butler and Teal
6 wells was at 195 feet, right?
7 A. I seem to recall that. I'm not sure if it
8 was the same on both, but I know it was around that
9 depth.
10 Q. Okay. So let's assume that it's at 195
11 feet --
12 A. Okay.
13 Q. -- just in the interest of time.
14 Rule 13 allows Range to set its surface
15 casing up to 200 feet below that, right?
16 A. Without getting an exception.
17 Q. Without getting an exception.
18 A. Right.
19 Q. Okay. So, in order for Range to comply with
20 Rule 13, it had to set the surface casing at 395 feet
21 or above?
22 A. No. That's incorrect.
23 Q. In order to comply with Rule 13, it was not
24 allowed to set the surface casing below 395 feet
25 without obtaining an exception?

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<p>1 A. That's not correct.</p> <p>2 Q. Why is that not correct?</p> <p>3 A. Do you have the rule? Could we just pull</p> <p>4 that out and take a look at it?</p> <p>5 Q. Let me just ask you: What does the Rule 13</p> <p>6 require with respect to the setting of surface casing,</p> <p>7 based on your understanding as you sit here right now?</p> <p>8 A. Well, the rule starts off by talking about</p> <p>9 what the intent is and where casing is supposed to be</p> <p>10 set in the -- it's the very first part of the rule</p> <p>11 there that you were just handed.</p> <p>12 MR. RITTER: Where are we at on</p> <p>13 cumulative time?</p> <p>14 THE REPORTER: Five hours and three</p> <p>15 minutes.</p> <p>16 BY MR. SIMS:</p> <p>17 Q. If you would look at Exhibit 13, if you</p> <p>18 would, please turn to Page 2 of that.</p> <p>19 A. Okay.</p> <p>20 Q. And do you see Section 2 where it says</p> <p>21 surface casing?</p> <p>22 A. I do.</p> <p>23 Q. Do you see, parentheses, a amount required?</p> <p>24 A. Yes.</p> <p>25 Q. And then the last sentence of little --</p>	<p>1 effort to follow the intent, using good engineering</p> <p>2 practice and the best currently available technology.</p> <p>3 And right before that, it outlines what</p> <p>4 the intent is.</p> <p>5 So, to comply -- in my opinion, to</p> <p>6 comply with Statewide Rule 13, if there are zones that</p> <p>7 are potentially productive, they must be isolated.</p> <p>8 That is the intent of the rule.</p> <p>9 If that requires you to seek an</p> <p>10 exception, then that's what you're required to do, to</p> <p>11 comply with the rule.</p> <p>12 Q. Do you remember the -- recall the documents</p> <p>13 that -- from the Railroad Commission that -- on their</p> <p>14 inspection reports where they checked off that Range</p> <p>15 was in compliance with Statewide Rule 13 with respect</p> <p>16 to both the Butler and Teal wells?</p> <p>17 A. I do. I recall that.</p> <p>18 Q. Is it -- is it your understanding then that</p> <p>19 you just have a disagreement with the Railroad</p> <p>20 Commission about whether Range complied with Statewide</p> <p>21 Rule 13?</p> <p>22 MR. RITTER: Objection, form.</p> <p>23 A. As it relates to those forms?</p> <p>24 Q. As it relates to their interpretation of and</p> <p>25 application of Statewide Rule 13 to the Butler and</p>
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<p>1 paren, little "i," do I read this correctly? It says:</p> <p>2 In no case, however, is surface casing</p> <p>3 to be set deeper than 200 feet below the specified</p> <p>4 depth without prior approval from the Commission.</p> <p>5 A. You read it correctly.</p> <p>6 Q. Okay. And the specified depth is the Water</p> <p>7 Board letter we talked about?</p> <p>8 A. It is.</p> <p>9 Q. So in no case, with respect to the Butler</p> <p>10 and Teal wells, could the surface casing be set</p> <p>11 deeper -- or was it to be set deeper than 200 feet</p> <p>12 below the -- below 195 feet without prior approval</p> <p>13 from the Railroad Commission?</p> <p>14 A. You had to get approval to do that.</p> <p>15 Q. Right.</p> <p>16 A. And you're required to do that under the</p> <p>17 rule.</p> <p>18 Q. Required to do what?</p> <p>19 A. Seek that exception in order to prevent</p> <p>20 vertical migration of fluids or gases behind the</p> <p>21 casing.</p> <p>22 And the first part of the rule, the</p> <p>23 very first paragraph talks about: When the section</p> <p>24 does not detail specific methods, to achieve the</p> <p>25 objectives, the responsible party shall make every</p>	<p>1 Teal wells.</p> <p>2 A. Well, those forms -- when he checked okay on</p> <p>3 those inspection reports, all he had in front of him</p> <p>4 was the fact that they -- where they set the surface</p> <p>5 casing and that an exception was obtained, as it was</p> <p>6 required to be obtained. Because on the face they</p> <p>7 followed the rules, then he checked okay.</p> <p>8 But that has nothing to do -- by him</p> <p>9 checking okay on that form has nothing to do with that</p> <p>10 field inspector's opinion on whether or not all</p> <p>11 potentially productive zones had been isolated, in</p> <p>12 conformance with the very first paragraph of the rule.</p> <p>13 Q. Well, is it your testimony that the Railroad</p> <p>14 Commission officer that filled out the forms didn't</p> <p>15 know what the potentially productive zones were?</p> <p>16 A. What I know is what I was told -- or what we</p> <p>17 were told, Mr. Richter called the District Director</p> <p>18 and asked how that guy proceeds to check that box.</p> <p>19 And what we were told is, he has the</p> <p>20 forms in front of him on a computer when he goes by</p> <p>21 the well. And if he sees that the surface casing was</p> <p>22 set more than 200 feet below the recommendation, and</p> <p>23 they obtained an exception for that, then in his</p> <p>24 opinion Statewide Rule 13 is okay. They don't have</p> <p>25 any other knowledge.</p>

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<p>1 Q. Who told you that?</p> <p>2 A. Well, Mr. Richter told me that, based on his</p> <p>3 conversation with Mr. Kress, the District Director at</p> <p>4 the Railroad Commission.</p> <p>5 Q. And when did that conversation occur?</p> <p>6 A. What's today, Wednesday? Either Monday or</p> <p>7 Tuesday of this week.</p> <p>8 Q. So after Mr. Richter's deposition?</p> <p>9 A. Yes. When that issue was raised.</p> <p>10 Q. The Lipsky Water Well Number 1 that we've</p> <p>11 talked about today, where does it produce gas from,</p> <p>12 out of the vent?</p> <p>13 MR. RITTER: Objection, form.</p> <p>14 A. I'm not sure what you mean. The well is</p> <p>15 shut in and not being used, so...</p> <p>16 Q. When it was being used, where would the gas</p> <p>17 come from, the vent?</p> <p>18 A. Well, I heard descriptions of a garden hose</p> <p>19 being connected. I'm not sure if it was connected to</p> <p>20 the vent or where it was connected. But I've seen</p> <p>21 some testimony about it coming out the garden hose.</p> <p>22 So, again, the deposition testimony</p> <p>23 would speak for itself.</p> <p>24 Q. Other than -- other than what was in front</p> <p>25 of the Railroad Commission, you don't have any</p>	<p>1 Q. And Statewide Rule 8 is a rule that requires</p> <p>2 all operators not to contaminate any groundwater</p> <p>3 source, isn't it?</p> <p>4 A. Okay. I'll take your word for it. I</p> <p>5 haven't read Statewide Rule 8 recently. But if that's</p> <p>6 what it is, that's what it is.</p> <p>7 Q. You know from reading the record that the</p> <p>8 Railroad Commission and the Hearing Examiner</p> <p>9 specifically made a finding that Range had not</p> <p>10 violated Statewide Rule 8, correct?</p> <p>11 A. Are you talking about in the PFD?</p> <p>12 Q. Yes, sir.</p> <p>13 A. I don't specifically recall if they</p> <p>14 referenced Statewide Rule 8 or not. I'd just have to</p> <p>15 look.</p> <p>16 Q. If they did, they did; and you don't have</p> <p>17 any reason to quibble with that?</p> <p>18 A. Well, I wouldn't have any reason to quibble</p> <p>19 with the fact that they put it in the PFD.</p> <p>20 Q. Or that the Railroad Commission adopted the</p> <p>21 PFD and all the findings?</p> <p>22 A. Or that they adopted it.</p> <p>23 Because I think the Final Order was</p> <p>24 issued based on that PFD.</p> <p>25 Q. And you know as you sit here today that the</p>
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<p>1 knowledge about that?</p> <p>2 A. No, I don't.</p> <p>3 Q. From your view of the Railroad Commission</p> <p>4 record, you're -- you know and certainly are aware</p> <p>5 that the information about these productive zones, or</p> <p>6 potentially productive zones, in Strawn and these</p> <p>7 others was before the Railroad Commission as part of</p> <p>8 the hearing?</p> <p>9 MR. RITTER: Objection, form.</p> <p>10 A. I remember the Strawn was discussed in</p> <p>11 detail, about the geology and how the Strawn is</p> <p>12 connected or communicated with the aquifer.</p> <p>13 I believe there was some discussion on</p> <p>14 the deeper zones, because there was some testimony</p> <p>15 about trying to explain the pressure on the</p> <p>16 bradenhead.</p> <p>17 And it was described at the hearing as</p> <p>18 these deeper zones weeping into the annulus, thus</p> <p>19 causing the pressure on the bradenhead.</p> <p>20 So there was some data and testimony</p> <p>21 about the Strawn and those lower zones that were</p> <p>22 behind the casing but uncemented.</p> <p>23 Q. Do you know what Statewide Rule 8 is?</p> <p>24 A. Oh, yes. I probably would have to look to</p> <p>25 make sure I knew exactly what the rule was, but --</p>	<p>1 Railroad Commission did specifically find that Range</p> <p>2 did not cause or contribute to any gas in the Lipsky</p> <p>3 water well as part of their Final Order?</p> <p>4 A. I'm not sure of the exact wording. But I</p> <p>5 think that was basically the gist of it.</p> <p>6 You know, we'd probably be better off</p> <p>7 just pulling it out and looking at exactly what they</p> <p>8 stated. But it was something to that effect.</p> <p>9 Q. Instead of putting another book in front of</p> <p>10 you, it's Exhibit 27 and it's in one of these books.</p> <p>11 But does Exhibit 27 appear to be a true</p> <p>12 and correct copy of the Final Order of the Railroad</p> <p>13 Commission?</p> <p>14 A. It appears to be, yes.</p> <p>15 Q. And if you would, please, sir, would you</p> <p>16 read the third full paragraph of the Final Order?</p> <p>17 A. (Reading:) It is accordingly ordered that</p> <p>18 production from the Butler Unit Number 1H and Teal</p> <p>19 Unit Well Number 1H, operated by Range Production</p> <p>20 Company, shall be allowed to continue, as Range</p> <p>21 Production Company has established that the operations</p> <p>22 of the wells have not caused or contributed and are</p> <p>23 not causing or contributing to the contamination of</p> <p>24 any domestic water wells.</p> <p>25 Q. Okay. As you read that, you understand that</p>

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1 that phrase, any domestic water wells, includes the
2 Lipsky water well?
3 **A. I would assume so, yes.**
4 Q. And if I understand your testimony correctly
5 today, you simply disagree with what the Hearing
6 Examiners and the Railroad Commission determined in
7 connection with the information that was before them?
8 MR. RITTER: Objection, form.
9 **A. Well, to the extent that their order implies**
10 **that the Commission reviewed and considered all**
11 **potential sources, I would disagree with that.**
12 **My interpretation of what the hearing**
13 **was about and what the Commission considered and**
14 **ordered was primarily related to the Barnett Shale and**
15 **whether or not Range's operations of those wells with**
16 **regard to the Barnett Shale contributed to**
17 **contamination of domestic water wells.**
18 **So that's my interpretation.**
19 **I would not agree with the Commission,**
20 **their PFD and their findings, that they looked at and**
21 **considered all potential sources.**
22 MR. SIMS: We've got to change -- got
23 to change the tape. I've got just a very few more
24 questions for you.
25 THE WITNESS: Okay.

1 Q. I want to show you what's been marked as
2 Exhibit Number 33, which is a page out of the record.
3 And I've highlighted a couple of sections, one
4 starting with Mr. Jackson talking to the Hearing
5 Examiners, and then another one by Mr. Cooney?
6 **A. Okay.**
7 Q. Could you read those out loud?
8 **A. (Reading:) Examiner Montez: So you're**
9 **looking at all of the possible sources of migration?**
10 **Mr. Jackson: That is correct.**
11 **Examiner Montez: Not just the source**
12 **set out in the EPA order?**
13 **Mr. Jackson: That is correct, yes. We**
14 **are looking at all the sources, because we've tried to**
15 **do an investigation that addresses any possible**
16 **allegation that Range -- could be made that Range's --**
17 **where Barnett Shale gas is somehow found in the Lipsky**
18 **well.**
19 **Of course, this witness is being**
20 **presented for the purpose of proving the gas in the**
21 **Lipsky well is not from the Barnett Shale, no matter**
22 **what avenue one might pick to get it there.**
23 **The other thing that Mr. Riley points**
24 **out, rightly, EPA doesn't express a theory. It just**
25 **says that there's -- therefore, it must be Range --**

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1 THE VIDEOGRAPHER: We're off the record
2 at 5:38 PM.
3 (Whereupon a short recess was taken.)
4 THE VIDEOGRAPHER: We're back on the
5 record at 5:43 PM.
6 BY MR. SIMS:
7 Q. Mr. Gore, do you know who Mr. Cooney is?
8 **A. I don't know him personally. I know he's an**
9 **attorney at the Railroad Commission.**
10 Q. And did you gain any understanding of what
11 role he played in the hearing before the Railroad
12 Commission, the final result of which was the Final
13 Order you just read from that's Exhibit 20 -- 27 to
14 your deposition?
15 **A. I don't -- I don't specifically know what**
16 **his role was other than being the representative of**
17 **the Commission at the hearing.**
18 Q. Okay. You do understand that he represented
19 the Railroad Commission, actually, at the hearing?
20 **A. Yes.**
21 Q. And he asked questions during the hearing?
22 **A. He did.**
23 Q. He cross-examined witnesses during the
24 hearing?
25 **A. He did.**

1 **I'm sorry. It says that it's there. Therefore, it**
2 **must be Range.**
3 **There are a Latin phrase for that. I**
4 **don't recall it right now. That is what they allege,**
5 **and they don't give a reason of how it got there.**
6 **Mr. Cooney: I might add, too, that the**
7 **District Office nor anyone from the Railroad**
8 **Commission who asked the operator to investigate this**
9 **would not have limited them to any particular theory**
10 **of migration, but would have wanted all theories to be**
11 **explored.**
12 Q. Okay. And so, based on the information
13 before the Railroad Hearing -- Commission Hearing
14 Examiners and the lawyer there representing the
15 Railroad Commission, they specifically said on the
16 record that the hearing -- the purpose of the hearing
17 was to explore all potential sources of migration.
18 That's what they wanted explored, right?
19 MR. RITTER: Objection, form.
20 **A. All potential sources of migration. And**
21 **then Mr. Jackson states: Where Barnett Shale gas is**
22 **somehow found in the Lipsky well.**
23 **It's not all potential sources of**
24 **migration of gas from other zones. It's from the**
25 **Barnett Shale.**

49 (Pages 193 to 196)

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1 Q. Well, aren't you aware that Mr. Lipsky -- I
2 mean Mr. Cooney specifically asked questions in the
3 hearing about whether gas could be migrating from the
4 Strawn formation into the water wells as a result of
5 the Butler and/or Teal wells?

6 **A. I don't specifically recall his questions**
7 **about that. I mean, I'd be glad to read it, if you**
8 **have it.**

9 Q. If that occurred, does that change your
10 opinion about what was explored in the Railroad
11 Commission hearing?

12 **A. I'd just have to look and see what he said**
13 **and take it in the context that it was said.**

14 MR. SIMS: Okay. Give me just a minute
15 and we'll find it.

16 (Short pause.)

17 THE VIDEOGRAPHER: Off the record?

18 MR. BARTON: Yes.

19 THE VIDEOGRAPHER: Off the record at
20 5:48 PM.

21 (Whereupon a short recess was taken.)

22 THE VIDEOGRAPHER: We are on the record
23 at 5:52 PM.

24 BY MR. SIMS:

25 Q. Mr. Gore, let me show you what I've marked

1 occurred.

2 BY MR. SIMS:

3 Q. Do you have any reason to doubt that the
4 Hearing Examiners called the hearing for the purposes
5 stated in Finding of Fact Number 2 in their PFD?

6 **A. No.**

7 Q. Do you have any reason to believe that they
8 didn't consider all of the things that could cause or
9 contribute or could be alternative causes or
10 contribution to the natural gas in the Lipsky water
11 well as set forth in Finding of Fact Number 2?

12 MR. RITTER: Objection, form.

13 **A. Do I have an opinion?**

14 Q. No. Do you have any reason to believe that
15 they didn't consider what they said they called the
16 hearing for?

17 MR. RITTER: Same objection.

18 **A. Yes.**

19 Q. What's your opinion?

20 **A. My opinion is they didn't consider all**
21 **possibilities; because if you look at the evidence**
22 **that was presented, it didn't cover all possibilities.**
23 **So how could the Commission have considered it if it**
24 **wasn't presented to them?**

25 Q. Well, as I -- as I understand it, the

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1 as Exhibit 34 which is the notice to the parties of
2 the PFD and the PFD issued in this case. I want you
3 to turn over to Page 14, which begins the Findings of
4 Fact section in the PFD.

5 If you would, please read Finding of
6 Fact Number 2.

7 MR. RITTER: Do you have an extra copy
8 of that?

9 MR. SIMS: I'm sorry, I don't. It's
10 the PFD.

11 **A. (Reading:) Finding of Fact Number 2: The**
12 **hearing was called by the Railroad Commission of Texas**
13 **to consider the extent and causation of and**
14 **responsibility for any contamination that may have**
15 **occurred or which is likely to occur in domestic water**
16 **wells in the area of the Range Production Company --**
17 **Range Production Company Butler Unit Well Number 1H,**
18 **RRC Number 253732, and the Teal Unit Well Number 1H,**
19 **RRC Number 253 -- 253779, and, more particularly,**
20 **whether the operation of these wells has caused or**
21 **contributed or may cause or contribute to any such**
22 **contamination.**

23 The call of the hearing was also to
24 consider whether there is any alternative cause or
25 contributor to any contamination that may have

1 opinions that you're providing today, you've testified
2 over and over and over again today, are pulled from
3 the information that was before the Railroad
4 Commission?

5 **A. That's correct.**

6 Q. Okay. So really what you're saying then, if
7 I'm -- if I'm correct, is that -- is that you weren't
8 there to put your opinion in front of them. The facts
9 were there, the information was there; you just
10 weren't there to pull it all together for them and
11 give them your opinion the way that you're trying to
12 do now?

13 MR. RITTER: Objection, form.

14 **A. I wasn't at the hearing?**

15 Q. Right.

16 **A. No. Obviously, I wasn't.**

17 Q. Right. And had you been there, you could
18 have pulled the facts that were introduced there in
19 evidence together and given them your opinion based on
20 the information that was put before the Railroad
21 Commission, same thing you're doing now?

22 MR. RITTER: Objection, form.

23 **A. Well, I don't think that's fair. I mean,**
24 **I've had the benefit of, you know, taking a look at**
25 **everything now for -- you know, the hearing was what,**

50 (Pages 197 to 200)

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<p>1 ten months ago?</p> <p>2 Clearly, from the time we were retained</p> <p>3 until the hearing occurred and the evidence was</p> <p>4 presented, you know, I hadn't done -- or gathered</p> <p>5 hardly any information. So I don't think it would be</p> <p>6 fair to characterize that I could have given my</p> <p>7 opinion.</p> <p>8 I mean, if the hearing was held today,</p> <p>9 surely I could, because I've had time to look at it;</p> <p>10 look at the testimony, the exhibits, the depositions,</p> <p>11 things like that.</p> <p>12 But I don't feel like I could have done</p> <p>13 that then.</p> <p>14 Q. Well, if I understand your testimony</p> <p>15 correctly, the Hearing Examiners, had they -- had they</p> <p>16 bought into or had they considered the opinion that</p> <p>17 you're now providing, could have ruled a different way</p> <p>18 based on the information that was in front of them?</p> <p>19 MR. RITTER: Objection, form.</p> <p>20 A. Had they bought into the opinion that I'm</p> <p>21 providing?</p> <p>22 Q. Yes, sir.</p> <p>23 A. They -- there was nothing for them to buy</p> <p>24 into because it wasn't presented.</p> <p>25 The -- as I understand the hearing and</p>	<p>1 question.</p> <p>2 Q. It doesn't matter who's asking the question.</p> <p>3 A. Oh.</p> <p>4 MR. RITTER: Well, objection,</p> <p>5 argumentative. Also, is this an exhibit? I presume</p> <p>6 that you don't have a copy for Counsel to look at?</p> <p>7 MR. SIMS: I've got the only copy I've</p> <p>8 got with me right now.</p> <p>9 BY MR. SIMS:</p> <p>10 Q. Exhibit 35, why don't you read the question</p> <p>11 at Page 193. We can go to the record and we can see</p> <p>12 who's asking the question and all that. Okay?</p> <p>13 A. Okay.</p> <p>14 Q. Why don't you read that question?</p> <p>15 A. The question, starting on Line 6 of Page 193</p> <p>16 is: Have you considered the possibility of either of</p> <p>17 the Butler or the Teal well being a factor in Strawn</p> <p>18 gas getting into the Lipsky well?</p> <p>19 Q. That's your theory, isn't it? That the</p> <p>20 Butler or Teal well is a factor of Strawn gas getting</p> <p>21 into the Lipsky water well?</p> <p>22 MR. RITTER: Objection, form.</p> <p>23 A. That's -- that's one of the factors. It</p> <p>24 doesn't address the Marble Falls, the Caddo, the</p> <p>25 Atoka.</p>
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<p>1 what was presented, it was focused on Barnett Shale</p> <p>2 gas being in the Lipsky water well. And that was the</p> <p>3 evidence that was presented, exhaustively. And the</p> <p>4 Commission ruled on that.</p> <p>5 Q. Let me show you Exhibit 35, which is some</p> <p>6 direct testimony out of the hearing. And I'll</p> <p>7 represent to you this is Mr. Cooney, actually, asking</p> <p>8 these questions at Page 193 of the transcript.</p> <p>9 Why don't you read his question and see</p> <p>10 what that says. Have you -- do you remember reading</p> <p>11 that before today?</p> <p>12 A. Well, I mean, this is an excerpt. Is it the</p> <p>13 Commission transcript?</p> <p>14 Q. Yes, it is.</p> <p>15 A. Then I would have read it.</p> <p>16 Q. Okay. What does -- what does that question</p> <p>17 ask?</p> <p>18 A. Who's he asking it of, just out of</p> <p>19 curiosity?</p> <p>20 Q. It's one of the experts in the case.</p> <p>21 A. Do you know which one?</p> <p>22 Q. Dr. McKessler.</p> <p>23 A. Okay. The question that's being asked, it's</p> <p>24 not by Mr. Cooney, I don't think. Well, see, this is</p> <p>25 all out of order. I can't tell who's asking the</p>	<p>1 Q. Well, it's not limited to any particular</p> <p>2 aspect of the wells. The question is: Have you</p> <p>3 considered whether the Butler or Teal wells is a</p> <p>4 factor of -- in Strawn gas getting into the Lipsky</p> <p>5 water well? That's the question.</p> <p>6 A. It is the question.</p> <p>7 MR. RITTER: Objection, form;</p> <p>8 objection, argumentative; asked and answered.</p> <p>9 Q. So, as you sit here today, are you -- are</p> <p>10 you saying that the Hearing Examiners did not do a</p> <p>11 good job of looking at the facts that were presented</p> <p>12 and coming to the right conclusion based on those</p> <p>13 facts?</p> <p>14 MR. RITTER: Objection,</p> <p>15 mischaracterizes his testimony.</p> <p>16 A. That's not what I said.</p> <p>17 Q. Well, as I understand your testimony, you've</p> <p>18 looked at the same facts the Hearing Examiners have</p> <p>19 looked at, and the Railroad Commission; but yet you</p> <p>20 come to a different conclusion. Is that fair?</p> <p>21 A. I don't think it is fair.</p> <p>22 Q. Why?</p> <p>23 A. Because in my opinion what the Railroad</p> <p>24 Commission was focusing on and what the testimony and</p> <p>25 the evidence was directed to was whether or not there</p>

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<p>1 was Barnett Shale gas migrating up and getting into 2 the Lipsky water well. 3 Q. And that's your opinion, even though Finding 4 of Fact Number 2 says we're going to consider every 5 potential cause from the operation of those wells that 6 could be a factor in getting into the Lipsky water 7 well? 8 A. Yes. The only thing the Commission can 9 consider is what's presented to them. 10 And what I'm telling you is, based on 11 my reading -- and I've discussed it with Mr. Richter. 12 He was an examiner for 20 years. So, you know, 13 there's probably no one more knowledgeable on the 14 subject than he is. 15 But the question is, did the Commission 16 consider everything? 17 And from our review of the record and 18 the evidence, what was presented had to do with 19 Barnett Shale gas getting into the Lipsky water well, 20 and any of the potential migration paths that it could 21 have gotten there. 22 And the Commission reviewed that, 23 considered it, and I think appropriately ruled that 24 Barnett Shale gas is not getting into the Lipsky water 25 well as a result of Range's operation at the Teal and</p>	<p>1 different conclusion. 2 Q. So you don't think Donna Chandler, looking 3 at the same facts that you've looked at in the 4 Railroad Commission record, that it was possible for 5 her to reasonably reach the conclusion that she 6 reached? 7 MR. RITTER: Objection, form. 8 A. No. I think Donna did a fine job reaching 9 the conclusion that she reached. And in my opinion 10 that was Barnett Shale gas getting into the Lipsky 11 water well. 12 Q. Do you think the Railroad Commission did a 13 fine job in reaching the orders in its Final Order 14 that you just read about the Range wells not causing 15 or contributing any gas in the Lipsky water well? 16 A. I'm sorry, do I think that the Commission 17 was reasonable? 18 Q. Did a fine job, just like you said Donna 19 Chandler did a fine job. Do you think the Railroad 20 Commission did a fine job in rendering its Final Order 21 and the content of its Final Order in this matter? 22 A. Well, again, I think they reached the 23 appropriate conclusion as it relates to the Barnett 24 Shale. 25 I think the wording of the Final Order</p>
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<p>1 the Butler well. 2 Q. Well, that's not what they ruled, is it? 3 They ruled that the Butler and Teal wells are not 4 causing or contributing any gas to get into the Lipsky 5 water well. 6 MR. RITTER: Objection, form. 7 A. That was of the finding of fact, that's 8 correct. 9 Q. And that was the -- that's in the Final 10 Order? 11 A. It is. 12 Q. And it's not appealable? 13 MR. RITTER: Objection, form. 14 A. Not now. 15 Q. Do you think that -- do you think that 16 reasonable engineers could differ significantly from 17 the opinions that you've espoused today? 18 A. I'm sure that reasonable engineers, having 19 looked at the data that I've looked at and considered, 20 would reach the same conclusion. 21 If they've had other information, then 22 perhaps they would reach different conclusions. 23 But I don't think that a reasonable 24 engineer could look at the facts as I've presented 25 them to you today, as I understand them, could reach a</p>	<p>1 is misleading given the information that the 2 Commission was presented and what they had to 3 consider. 4 So in that regard I don't think they 5 did a fine job, in my opinion. 6 Q. Do you -- have you talked to either the 7 Hearing Examiners or any of the Railroad Commissioners 8 about what they actually considered or thought about 9 in terms of rendering their PFD or their Final Order 10 in the case? 11 A. No. 12 Q. Do you think the Railroad Commission 13 carefully considers the wording that it puts in its 14 Final Orders? 15 MR. RITTER: Objection, calls for 16 speculation. 17 A. I'm not sure what the process would be that 18 the Commission would go through on choosing their 19 wording. 20 Mr. Richter would probably be a better 21 one to ask that since he was an examiner for 20 years. 22 But I don't know. 23 Q. After you -- after you got the Hearing 24 Record -- and let me ask you this: Can you tell from 25 your billing statements when you actually got the</p>

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1 Hearing Record?
2 (Short pause.)
3 A. Well, on January the 25th there is an entry
4 by Jeff Hawkins about requesting exhibits from the
5 Range Hearing. So --
6 Q. You first began reviewing the Railroad
7 Commission hearing data on February the 7th, is that
8 correct?
9 A. Are you talking about me personally?
10 Q. Yes.
11 A. That looks like it's the first entry that I
12 made about reviewing Railroad Commission hearing data.
13 But there were entries before that for
14 other people.
15 Q. Is that -- that's the only entry you have in
16 February for reviewing Railroad Commission hearing
17 data, is that correct?
18 A. It looks like it.
19 Q. And you've got two hours --
20 A. No, that -- that's not true.
21 Q. Okay.
22 A. There's one on the 8th.
23 Q. On the 8th, okay.
24 You've got two hours on the 7th and
25 three hours and 30 minutes on the 8th?

1 MR. RITTER: Objection, form.
2 Q. You don't have any other time entry for
3 actually reviewing the record before you reached your
4 opinions in this matter?
5 A. I don't have any other time entries
6 regarding reviewing the Railroad Commission records
7 during that time period.
8 Q. If you had spent any other time reviewing
9 them, would you have written your time down?
10 A. Well, I try to, because I only get paid for
11 my time. So I try to do a good job of keeping track.
12 Sometimes I do, sometimes I don't.
13 I'll give you an example of that.
14 On the 10th Mr. Richter notes a
15 conference call with me, but I don't even have any
16 time down on the 10th. So, you know, that would be an
17 example of perhaps where I didn't keep good records of
18 my time.
19 Q. As you sit here today, the only time that
20 you know of that you actually reviewed the record in
21 this matter from the Railroad Commission is on
22 February 7th and February 8th?
23 A. That's not correct. I mean, I've looked at
24 the records a lot over the last month or two.
25 Q. Okay. Well, let me re-ask my question.

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1 A. Yes.
2 Q. And some of that three hours and 30 minutes
3 was discussing outline project with staff?
4 A. Yes.
5 Q. And if I'm correct, if I understood your
6 testimony before, you-all had reached your opinions --
7 you reached your opinions about this in February of
8 2011?
9 A. February or March, probably, is when we
10 formulated our opinions that, you know, the well --
11 the Teal and the Butler wells were not in our opinion
12 properly cased and cemented.
13 Q. And so, in terms of your actual review of
14 the record, you reached that opinion in two hours on
15 February 7th and three hours and 30 minutes on
16 February 8th?
17 MR. RITTER: Objection, form.
18 A. Well, I had discussions with Mr. Richter, so
19 I don't -- I don't think it would be fair to say it
20 would just be those hours spent on those two days.
21 Q. Well, that's -- I understand. But my
22 question is: You reached your opinion in terms of
23 actual review of the Railroad Commission record from
24 two hours on February the 7th and three hours and 30
25 minutes on February the 8th?

1 Before you arrived at your opinions in
2 case, the only time you know of that you actually
3 reviewed the record is what's shown on February 7th
4 and February 8th in your billing statements?
5 A. According to those billing statements,
6 that's correct.
7 MR. SIMS: Pass the witness.
8 EXAMINATION
9 BY MR. WIESER:
10 Q. Mr. Gore, my name is Jay Wieser, and I
11 represent the Silverado Defendants. We've never met
12 before today, have we?
13 A. No, sir.
14 Q. Do you understand who I'm referring to when
15 I say the Silverado Defendants?
16 A. Not really.
17 Q. Okay. Just so we're clear, that would be
18 Durant, Carter, Coleman, LLC; Silverado on the Brazos
19 Development Company #1, Limited; Jerry V. Durant;
20 James T. Coleman; and the Estate of Preston Carter.
21 That's who I'm referring to when I say the Silverado
22 Defendants. Can we have that agreement?
23 A. Okay.
24 Q. Okay. Basically everybody but Range.
25 Is the sum total of all of your

53 (Pages 209 to 212)

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<p>1 opinions that you've developed so far in this case set 2 forth in either Exhibit Number 3, Mr. Richter's 3 affidavit; his testimony; or your testimony here 4 today?</p> <p>5 A. Well, yes. I would like to point out that, 6 while I don't think my opinions differ from 7 Mr. Richter's affidavit, his affidavit is his 8 opinions, not mine. But we have the same -- I don't 9 want to be, you know, difficult. But, you know, 10 that's his affidavit, not my affidavit.</p> <p>11 Q. Understood. So let me re-ask the question 12 this way:</p> <p>13 Are all the opinions that anyone at 14 PG -- sorry -- PGH has developed thus far in this case 15 set forth in either the affidavit from Mr. Richter, 16 his testimony, or your testimony here today?</p> <p>17 A. I believe that would be fair, yes.</p> <p>18 Q. Have you performed any opinions that 19 specifically regard the Silverado Defendants?</p> <p>20 A. No.</p> <p>21 Q. So all of the opinions that you have, to the 22 extent they relate to the Silverado Defendants, they 23 are -- principally concern Range and their actions in 24 this suit?</p> <p>25 A. Yes.</p>	<p>1 with the exception of real estate because I know you 2 think that might be a little too broad.</p> <p>3 A. I mean, I don't even know what you're 4 talking about.</p> <p>5 Q. Okay.</p> <p>6 A. If --</p> <p>7 Q. Well, let me ask my question then 8 specifically.</p> <p>9 Do you intend to offer any opinions 10 with regard to the restrictive covenants in this case?</p> <p>11 A. Well, I haven't been asked to. I don't know 12 how that would impact my area of expertise.</p> <p>13 If there's something in there about oil 14 and gas development, you know, perhaps I might be. 15 But, I mean, I don't know how to answer that.</p> <p>16 Q. But you haven't been asked to give that 17 opinion at this time?</p> <p>18 A. No.</p> <p>19 Q. Have you reviewed the restrictive covenants 20 that form the basis of the Plaintiffs' claims against 21 the Silverado Defendants --</p> <p>22 A. No.</p> <p>23 Q. -- in this case?</p> <p>24 A. I'm sorry. No.</p> <p>25 Q. At this point do you intend to testify at</p>
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<p>1 Q. Have you been asked to provide any opinions 2 with regard to Silverado Defendants?</p> <p>3 A. No.</p> <p>4 Q. Are you an expert in restrictive covenants?</p> <p>5 A. No.</p> <p>6 Q. Are you an expert in real estate 7 development?</p> <p>8 A. No.</p> <p>9 Q. Are you an expert in deed restrictions?</p> <p>10 A. No.</p> <p>11 Q. Are you an expert in any facet of the -- of 12 the real estate field?</p> <p>13 A. Well, I hate to say any facet. I mean, I 14 don't know what there could be out there that -- 15 perhaps, if oil and gas issues or development issues 16 were involved in some sort of real estate deal, then 17 perhaps I would be.</p> <p>18 But -- so, I mean, I hate to make a 19 general statement that -- you know, just a blanket 20 statement that, no, I'm not.</p> <p>21 I mean, I -- if there's a specific 22 area, you know, that you have in mind, I'd be glad to 23 consider that. But I hate generalizing.</p> <p>24 Q. Do you intend to offer any expert opinions 25 regarding any of those fields that I just mentioned,</p>	<p>1 trial?</p> <p>2 A. If I'm asked to do so, I will.</p> <p>3 Q. Have you been asked to do so?</p> <p>4 A. No.</p> <p>5 Q. Has that been discussed between you and 6 Plaintiffs' lawyers?</p> <p>7 A. No.</p> <p>8 Q. Are you intending on preparing a report at 9 any time?</p> <p>10 A. I don't know. I haven't been asked to.</p> <p>11 Q. So, as of right now, you haven't been asked 12 to prepare a report or an affidavit by the Plaintiffs' 13 lawyers?</p> <p>14 A. No.</p> <p>15 Q. Does anyone in your firm have any expertise 16 or degrees or training in the field of real estate 17 covenants or deed restrictions or the interpretation 18 of those instruments?</p> <p>19 A. I don't -- I don't believe so. I mean, I've 20 looked at a lot of different documents, like city 21 ordinances and things like that, that would deal with 22 oil and gas development. And I've given opinions on 23 those.</p> <p>24 So, I mean, to the extent that those 25 covenants or deed restrictions that you're talking</p>

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<p>1 about deal with some sort of oil and gas activity and</p> <p>2 what's allowed or not allowed, I mean, perhaps I</p> <p>3 have -- I would have some expertise in that.</p> <p>4 I don't know. Again, I hate to give</p> <p>5 you an answer to a broad question without really</p> <p>6 knowing more specifics.</p> <p>7 Q. Have you reviewed any of those kinds of</p> <p>8 documents in this case?</p> <p>9 A. No.</p> <p>10 Q. I believe Mr. Sims asked you if you had</p> <p>11 spoken to any of the Commissioners or anyone at the</p> <p>12 Railroad Commission regarding their the PFD, and you</p> <p>13 said no, is that correct?</p> <p>14 A. That's correct.</p> <p>15 Q. Have you informed any of those individuals</p> <p>16 or anyone working for them that you believe that</p> <p>17 their -- the Final Order is misleading?</p> <p>18 A. No.</p> <p>19 Q. You were asked earlier -- and forgive me</p> <p>20 because I'm kind of new to this case and I don't</p> <p>21 really understand the specific details of it. But you</p> <p>22 were asked what was the geology under the Lipsky Well</p> <p>23 Number 1. And I didn't -- maybe I didn't catch your</p> <p>24 answer or I didn't understand it.</p> <p>25 What is the geology under the Lipsky</p>	<p>1 A. I don't really distinguish between</p> <p>2 hydrogeology and geology. I mean, I -- to me, that</p> <p>3 implies geology of just water zones.</p> <p>4 I think it's all interrelated, because</p> <p>5 it's fluid flow and porous media. Whether the fluid</p> <p>6 is water, salt water or fresh water, oil or gas.</p> <p>7 So I generally don't use the term,</p> <p>8 hydrogeology. But, I mean, we use geology,</p> <p>9 geophysical data, and geological data in our everyday</p> <p>10 work. And I've done so, you know, my entire career.</p> <p>11 Q. We also talked earlier about a pressure</p> <p>12 differential.</p> <p>13 Is pressure at a well bradenhead</p> <p>14 related to or indicative of down-hole pressure</p> <p>15 differentials?</p> <p>16 MR. SIMS: Objection, form.</p> <p>17 A. Yes, it is.</p> <p>18 Q. And we talked about fluid in the annulus,</p> <p>19 whether water, drilling mud, or a combination of</p> <p>20 those.</p> <p>21 Does the Railroad Commission consider</p> <p>22 fluid in an annulus a reliable barrier to gas</p> <p>23 migration?</p> <p>24 A. No, I don't believe they do. If they did,</p> <p>25 then there wouldn't be the requirements to set cement</p>
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<p>1 Well Number 1?</p> <p>2 A. I'm not sure what you mean by that. Are you</p> <p>3 talking about the geology of the shallower, the water</p> <p>4 zones, the aquifer, or the deeper zones that would be</p> <p>5 hydrocarbon bearing? I'm not sure I know what you</p> <p>6 mean.</p> <p>7 Q. Well, let's start with the reservoir. What</p> <p>8 is the geology directly beneath the well?</p> <p>9 A. Well, I guess that would be the aquifer, the</p> <p>10 shallow beds where, you know, the water wells are</p> <p>11 drilled to and completed.</p> <p>12 MR. WIESER: I'll pass the witness.</p> <p>13 EXAMINATION</p> <p>14 BY MR. RITTER:</p> <p>15 Q. Mr. Gore, you testified earlier that you're</p> <p>16 not a licensed -- Texas-licensed geologist,</p> <p>17 hydrogeologist, or geophysicist, is that correct?</p> <p>18 A. Yes.</p> <p>19 Q. Do you, however, use geological,</p> <p>20 hydrogeological, and geophysical information as part</p> <p>21 of reaching your opinions as a petroleum engineer?</p> <p>22 MR. SIMS: Objection, form.</p> <p>23 A. Yes.</p> <p>24 Q. Do you use some of those or all of those?</p> <p>25 MR. SIMS: Objection, form.</p>	<p>1 to isolate zones. So I don't believe they would.</p> <p>2 Q. And is that the setting to isolating --</p> <p>3 setting to isolate zones referred to in Statewide Rule</p> <p>4 13?</p> <p>5 A. Yes.</p> <p>6 Q. Do you believe that the other operators who</p> <p>7 secured variances -- Rule 13 variances and set their</p> <p>8 casing in excess of 200-foot depth, do you believe</p> <p>9 that those -- in proximity to the Lipsky well -- do</p> <p>10 you believe those engineers exercised good engineering</p> <p>11 practice and the best available use of technology?</p> <p>12 A. I'm not sure I could answer that. I'm not</p> <p>13 sure what they would have used or considered.</p> <p>14 All I know is that -- where the surface</p> <p>15 casing was set. And it appears that, you know, it was</p> <p>16 done in good practice. But, you know, really, beyond</p> <p>17 that, we'd really have to get into the files and make</p> <p>18 that determination.</p> <p>19 Q. Let's look at Exhibit 33 for a second.</p> <p>20 In the statement that Mr. Sims</p> <p>21 highlighted, is that testimony from Mr. Jackson --</p> <p>22 well, I'm sorry, primarily testimony -- does that</p> <p>23 contain testimony from Mr. Jackson?</p> <p>24 A. Well, I wouldn't call it testimony because I</p> <p>25 don't believe he was under oath.</p>

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<p>1 I would consider it more argument.</p> <p>2 Q. And that was going to be my next question.</p> <p>3 Is Mr. Jackson an expert witness for</p> <p>4 Range in that case?</p> <p>5 A. I believe he was one of the Range attorneys,</p> <p>6 not an expert.</p> <p>7 Q. And would you read Lines 20 through 24 of</p> <p>8 the highlighted portion?</p> <p>9 A. Well, I really probably ought to pick up on</p> <p>10 Line 19 because -- to get the context --</p> <p>11 Q. Sure.</p> <p>12 A. -- where it would flow better, but --</p> <p>13 (Reading:) Allegation that could be</p> <p>14 made that Range is where Barnett Shale gas is somehow</p> <p>15 found in the Lipsky well, of course this witness is</p> <p>16 being presented for the purpose of proving that the</p> <p>17 gas in the Lipsky well is not from the Barnett Shale,</p> <p>18 no matter what one might pick -- no matter what avenue</p> <p>19 one might pick to get it there.</p> <p>20 Q. And you were present here for the entirety</p> <p>21 of Mr. Richter's deposition, is that correct?</p> <p>22 A. I was.</p> <p>23 Q. And after listening to Mr. Richter's</p> <p>24 deposition and after going through today's</p> <p>25 questioning, is there anything that you would change</p>	<p>1 other than the natural gas in the Lipsky water well,</p> <p>2 is occurring naturally?</p> <p>3 MR. RITTER: Objection, form.</p> <p>4 A. I think, based upon the tests that were</p> <p>5 conducted that showed small amounts of natural gas in</p> <p>6 the other water wells, I think it would be reasonable</p> <p>7 to conclude that some small amount might be in the</p> <p>8 Lipsky well naturally. Not to the -- I mean, clearly,</p> <p>9 the condition of the well as I understand it, and the</p> <p>10 quantity of gas that's there, it is more than just a</p> <p>11 small amount; it's a lot.</p> <p>12 So, could a very small part of that be</p> <p>13 part of some natural occurrence unrelated, perhaps.</p> <p>14 But I think, given what we've discussed here today,</p> <p>15 that the only logical explanation to me that will</p> <p>16 explain what is occurring at the Lipsky well is due to</p> <p>17 the completion and the lack of surface casing in the</p> <p>18 Teal and the Butler wells.</p> <p>19 Q. Excluding the Lipsky water well, then do you</p> <p>20 believe that the, what you term as small occurrences</p> <p>21 of natural gas in all -- in the other water wells is</p> <p>22 occurring naturally?</p> <p>23 A. Well, I haven't made my own independent</p> <p>24 study of that.</p> <p>25 The evidence that was presented and the</p>
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<p>1 about Mr. Richter's affidavit?</p> <p>2 A. No.</p> <p>3 Q. And do you have any disagreement with the</p> <p>4 conclusions that he expressed in his affidavit or at</p> <p>5 his deposition?</p> <p>6 A. No.</p> <p>7 MR. RITTER: Pass the witness.</p> <p>8 EXAMINATION</p> <p>9 BY MR. SIMS:</p> <p>10 Q. Mr. Gore, was there any discussion -- has</p> <p>11 there been any discussion in the last week or two</p> <p>12 between you and any of the lawyers or Mr. Richter</p> <p>13 about you signing an affidavit?</p> <p>14 A. No.</p> <p>15 Q. No one's -- no one's asked you to sign an</p> <p>16 affidavit, asked you to consider signing an affidavit</p> <p>17 at all?</p> <p>18 A. No.</p> <p>19 Q. Is it possible that the natural gas in all</p> <p>20 the water wells, other than the Lipsky water well, is</p> <p>21 occurring naturally?</p> <p>22 MR. RITTER: Objection, form.</p> <p>23 A. That all of the natural gas -- I would not</p> <p>24 think so, no.</p> <p>25 Q. Is it possible that some of the natural gas,</p>	<p>1 geology that was presented would seem to indicate that</p> <p>2 that is the case. And based upon that data, that</p> <p>3 seems to be reasonable.</p> <p>4 So I base my answer on looking at that</p> <p>5 information, and that information only, that there</p> <p>6 appears to be some very minimal amount of natural gas</p> <p>7 that would be present in some of these water wells.</p> <p>8 MR. RITTER: Excuse me. I'm sorry.</p> <p>9 Where are we at time-wise?</p> <p>10 THE REPORTER: Five hours, 48 minutes.</p> <p>11 For Mr. Sims.</p> <p>12 BY MR. SIMS:</p> <p>13 Q. My question is: Other than the Lipsky water</p> <p>14 well, every other water well in the Silverado</p> <p>15 subdivision and these other water wells close-by that</p> <p>16 have natural gas in them, do I understand you</p> <p>17 correctly to say that it's reasonable to conclude that</p> <p>18 the natural gas in those water wells has occurred</p> <p>19 naturally?</p> <p>20 MR. RITTER: Objection, form.</p> <p>21 A. Well, I think -- yes, I think it would be</p> <p>22 reasonable to conclude that, given the very small</p> <p>23 amounts.</p> <p>24 Now, what we don't know -- those tests,</p> <p>25 as you've indicated to me, were done in December of</p>

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<p>1 2010, January of 2011.</p> <p>2 We don't have tests from those wells</p> <p>3 going back to when they were first drilled. So, you</p> <p>4 know -- so, in that regard, I don't know that I could</p> <p>5 tell you that, you know, the -- that that presence</p> <p>6 would be natural or not.</p> <p>7 But given the geology that was</p> <p>8 presented, the very small amount, that seems to be</p> <p>9 reasonable. But, really, I would need to look at it</p> <p>10 in more detail to give you a definitive opinion on</p> <p>11 that. But as I sit here, that would seem to be</p> <p>12 reasonable.</p> <p>13 Q. But even though you don't have tests going</p> <p>14 back on Lipsky's well to when it was first drilled,</p> <p>15 are you able to sit here and give us a definitive</p> <p>16 opinion about that?</p> <p>17 MR. RITTER: Objection, form.</p> <p>18 A. Well, we have other things other than tests</p> <p>19 on the Lipsky well. We have, you know, the two</p> <p>20 different water well drillers going out there to look</p> <p>21 at problems that were being reported. We don't have</p> <p>22 that on any of those other wells. So, I mean, it's an</p> <p>23 entirely different circumstance.</p> <p>24 Q. Is it possible -- is it possible that the</p> <p>25 natural gas in the Lipsky water well, all of it, is</p>	<p>1 you find it necessary to run tests to rule out that</p> <p>2 possibility --</p> <p>3 MR. SIMS: Objection, form.</p> <p>4 Q. -- that Mr. Sims had talked about?</p> <p>5 A. No. I think we had quite a bit of data that</p> <p>6 was made available either through depositions or the</p> <p>7 files of the Railroad Commission. So I think we can</p> <p>8 reach that conclusion without having to run any</p> <p>9 specialized tests.</p> <p>10 The -- any tests you run, anyway, would</p> <p>11 be as of today. I don't know what that would</p> <p>12 necessarily tell you about two years ago.</p> <p>13 So probably the better data is to look</p> <p>14 at the history that's been reported on the well -- or</p> <p>15 on all the wells, actually -- and reach your</p> <p>16 conclusion based upon that data.</p> <p>17 MR. RITTER: Pass the witness.</p> <p>18 EXAMINATION</p> <p>19 BY MR. SIMS:</p> <p>20 Q. You reached your conclusion in this case</p> <p>21 based on quite a bit of data that was made available</p> <p>22 either through depositions or the files of the</p> <p>23 Railroad Commission, is that correct?</p> <p>24 A. All of the data that we had was basically</p> <p>25 that data. Other than, obviously, the conversations</p>
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<p>1 occurring naturally? Is it possible?</p> <p>2 MR. RITTER: Objection, form.</p> <p>3 A. I think the possibility would be so remote</p> <p>4 that I would venture to say that it would not be</p> <p>5 possible, given the contrast between the performance</p> <p>6 of the Lipsky well and the other wells that we know</p> <p>7 about.</p> <p>8 So, while -- is it possible? I think</p> <p>9 it would -- I think it would be so low that it would</p> <p>10 be unreasonable to -- kind of going back to more</p> <p>11 likely than not, I don't think that would be a</p> <p>12 reasonable conclusion.</p> <p>13 Is there some slight, minute</p> <p>14 possibility? Perhaps. But I really don't think that</p> <p>15 would be reasonable.</p> <p>16 Q. You haven't conducted any independent</p> <p>17 testing at all to rule out that possibility, no matter</p> <p>18 how small you may think it is, have you?</p> <p>19 A. No.</p> <p>20 MR. SIMS: Pass the witness.</p> <p>21 EXAMINATION</p> <p>22 BY MR. RITTER:</p> <p>23 Q. In order to reach the opinion more likely</p> <p>24 than not -- strike that.</p> <p>25 In order to reach your opinions, did</p>	<p>1 that I had with Mr. Stewart and Mr. Ritter, the total</p> <p>2 universe of the data that we had available to us was</p> <p>3 either through the depositions or the files of the</p> <p>4 Railroad Commission.</p> <p>5 MR. SIMS: Pass the witness.</p> <p>6 MR. WIESER: All right. I don't have</p> <p>7 any other questions at this time, so we will reserve</p> <p>8 our right to re-depose this witness should he perform</p> <p>9 any further analysis or offer any additional opinions.</p> <p>10 MR. RITTER: I have one more.</p> <p>11 EXAMINATION</p> <p>12 BY MR. RITTER:</p> <p>13 Q. In addition to the information from the</p> <p>14 Railroad Commission and the depositions, was there</p> <p>15 testimony from Mr. Richter that he had obtained some</p> <p>16 geological information from publicly available</p> <p>17 sources?</p> <p>18 MR. SIMS: Objection, form.</p> <p>19 A. Yes, there was.</p> <p>20 MR. RITTER: Thank you. Pass the</p> <p>21 witness.</p> <p>22 MR. SIMS: Pass the witness.</p> <p>23 THE VIDEOGRAPHER: We're off the record</p> <p>24 at 6:37 PM.</p> <p>25 (Whereupon the deposition was concluded at 6:37 PM.)</p>

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1 CHANGES AND SIGNATURE
2 TO THE ORAL DEPOSITION OF
3 WAYMAN T. GORE, JR., P.E.
4 Volume 1 of 1
5 November 16, 2011

6 PAGE LINE CHANGE REASON

1 CAUSE NO. CV11-0798
2 STEVEN and SHYLA LIPSKY, \$ IN THE DISTRICT COURT
3 v. \$
4 DURANT, CARTER, COLEMAN, \$ 43RD JUDICIAL DISTRICT
5 LLC; SILVERADO ON THE \$
6 BRAZOS DEVELOPMENT \$
7 COMPANY #1 LTD.; JERRY \$
8 V. DURANT, Individually; \$
9 JAMES T. COLEMAN, \$
10 Individually; ESTATE OF \$
11 PRESTON CARTER; RANGE \$
12 PRODUCTION COMPANY; AND \$
13 RANGE RESOURCES \$
14 CORPORATION, \$
15 v. \$
16 \$ PARKER COUNTY, TEXAS
17 ALISA RICH \$

18 REPORTER'S CERTIFICATION
19 DEPOSITION OF
20 WAYMAN T. GORE, JR., P.E.
21 Volume 1 of 1
22 November 16, 2011

23 I, Gaylord A. Sturgess, Certified Shorthand
24 Reporter in and for the State of Texas, hereby certify
25 to the following:

That the witness, WAYMAN T. GORE, JR., P.E., was
duly sworn by the officer and that the transcript of
the oral deposition is a true record of the testimony
given by the witness;

That the deposition transcript was submitted on
November 21, 2011, to the witness or to the attorney

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1 I, WAYMAN T. GORE, JR., P.E., have read the
2 foregoing deposition and hereby affix my signature
3 that same is true and correct, except as noted above.

4
5 WAYMAN T. GORE, JR., P.E.

6 STATE OF _____)
7 COUNTY OF _____)

8 Before me, _____, on this
9 day personally appeared WAYMAN T. GORE, JR., P.E.,
10 known to me (or proved to me under oath or through
11 _____ (description of identity card or other
12 document) to be the person whose name is subscribed to
13 the foregoing instrument and acknowledged to me that
14 they executed the same for the purposes and
15 consideration therein expressed.

16 (Seal) Given under my hand and seal of office
17 this _____ day of _____, _____.

18 Notary Public in and for the
19 State of _____

1 for the witness for examination, signature, and return
2 to Gaylord A. Sturgess by December 14, 2011;
3 That the amount of time used by each party at the
4 deposition is as follows:

5 David Ritter - 00:00
6 Jay Wieser - 00:09
7 Andrew D. Sims - 05:52
8 David E. Jackson - 00:00
9 George Carlton, Jr. - 00:00

10 That pursuant to information given to the
11 deposition officer at the time said testimony was
12 taken, the following includes counsel for all parties
13 of record:

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22 BRAZOS DEVELOPMENT #1 LTD.; JERRY V. DURANT,
23 INDIVIDUALLY; JAMES T. COLEMAN, INDIVIDUALLY; AND
24 ESTATE OF PRESTON CARTER:


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58 (Pages 229 to 232)

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14 GODWIN RONQUILLO, PC
15 1201 Elm Street
16 Suite 1700
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18 214.939.4421
19 GCarlton@GodwinRonquillo.com
20 I further certify that I am neither counsel for,
21 related to, nor employed by any of the parties or
22 attorneys in the action in which this proceeding was
23 taken, and further that I am not financially or
24 otherwise interested in the outcome of the action.
25 Further certification requirements pursuant to
Rule 203 of TRCP will be certified to after they have
occurred.
Certified to by me on November 20, 2011.

Gaylord A. Sturgess, CSR No. 744
Expiration Date: 12/31/12
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Job No. 12062.as

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1
2 FURTHER CERTIFICATION UNDER RULE 203 TRCP
3
4 The original deposition was/was not returned to
5 the deposition officer on _____;
6 If returned, the attached Changes and Signature
7 page contains any changes and the reasons therefor;
8 If returned, the original deposition was
9 delivered to Andrew D. Sims, Custodial Attorney;
10 That \$ _____ is the deposition officer's
11 charges to RANGE PRODUCTION COMPANY AND RANGE
12 RESOURCES CORPORATION for preparing the original
13 deposition transcript and any copies of exhibits;
14 That the deposition was delivered in accordance
15 with Rule 203.3, and that a copy of this certificate
16 was served on all parties shown herein and filed with
17 the Clerk.
18 Certified to by me this ____ day of _____,
19 2011.
20
21 By:
22 For: Gaylord A. Sturgess, CSR No. 744
23 Expiration Date: 12/31/12
24 Merit Court Reporters, LLC
25 Firm Registration No. 133
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